

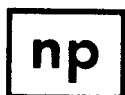
COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 6

by

Ernest W. Flick



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To
Ryan Eric Taylor

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Section I

Antiperspirants and Deodorants

Solid Antiperspirant

Formulating Design and Advantages:

Illustrated in this formula is the gelling properties of Hexanediol Behenyl Beeswax in a silicone oil, producing an opaque stick which is creamy and spreads evenly.

Formula:

	<u>Wt%</u>
Hexanediol Behenyl Beeswax (Koster Keunen)	12.0
Deodorized Orange Wax (Koster Keunen)	6.0
Kester Wax 82 (Koster Keunen)	8.0
Silicone Oil 556 (Dow)	36.0
Cetyl Stearyl Alcohol (P&G)	18.0
Aluminum Chlorohydrate (Reheis)	20.0

Procedure:

Melt and homogenize at 75C, cool and pour into container at 55C.

Adaptation of Formula and Its Influence on the Product:

Irgason DP-300 can be added to change this product to a deodorant/antiperspirant. Fragrances are easily added.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Anti Perspirant Stick

Ingredient:

	<u>Wt%</u>
Volatile Silicone	44.50
Stearyl Alcohol	23.00
Oils of Aloha Kukui Nut Oil	5.00
Arlacel 165	2.00
Silica	0.50
Aluminum Chlorhydrate	25.00

Manufacturing Procedure:

Combine ingredients at 75C.

Stearyl alcohol is the hardening agent that make the stick.

The Silica serves as a stabilizer and the Oils of Aloha Kukui Nut oil serves two functions-reduces tackiness and reduces whitening on the skin.

SOURCE: Oils of Aloha: Suggested Formulation

Section II

Baby Products

Baby Conditioner
(Formula 86-0404M)

	<u>% by Weight</u>
Rhodaquat D261C/75	2.20
Cetyl Alcohol NF	1.70
Alkamuls PSML-80	0.15
Cellose QP 52,000 H	1.70
Citric Acid	Q.S. to pH 3.5-4.5
Fragrance, Dye(s), Preservative	0.10
Water	94.15

Blending Procedure:

Dissolve Citric Acid in water and heat to 30-35C. With vigorous agitation, lightly sift Cellose QP 52,000H into water. With smooth agitation, continue to heat system to 70-75C. With smooth agitation, slowly blend Rhodaquat D261C/75, Cetyl Alcohol NF, and Alkamuls PSML-80 into heated water system. Mix until completely uniform. With smooth agitation, cool system to 40C and blend in compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties:

Appearance @ 25C: Viscous, Opaque Liquid
Viscosity @ 25C: 16,000+ cps (No, 4 spindle @ 10 RPM)
pH: 3.5-4.5
% Non Volatiles: 5-6

Spray-On Detangler for Children
(Formula 88-708M)

	<u>% by Weight</u>
Rhodaquat D261C/75	1.0
Silicone 344 Fluid (Dow Corning)	0.5
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Water	98.5

Blending Procedure:

Heat water to 70C. With rapid but smooth agitation, slowly blend in Rhodaquat D261C/75 and mix until uniform. With smooth agitation, cool system to 40-45C and blend in Silicone 344 Fluid. Once system is uniform, adjust formulation pH to 3.5-4.5 with Citric Acid as needed and add compatible Fragrance, Dye(s), and Preservative.

Use Directions: Dispense via pump or aerosol spray.

Typical Formulation Properties:

Appearance @ 25C: Thin Liquid
pH: 3.5-4.5

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulations for Personal Care

Baby Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Propylene Glycol Stearate	9.00
Stearic Acid	2.00
Carnation Mineral Oil (Witco)	8.00
Acetylated Lanolin Alcohol	1.00
Lanolin Oil	1.00
Cetyl Alcohol	0.50
Propylparaben	0.10
B:	
Tech-O 11-070 Ster-O-Pro (Beacon CMP)	2.00
C:	
Propylene Glycol	1.50
Triethanolamine (85%)	0.90
Methylparaben	0.20
Imidazolidinyl Urea	0.20

Procedure:

Weigh A and heat with stirring to 75C. In a separate container weigh B and mix until dispersed. Add C and heat to 75C with stirring. With both phases at 75C add B to A with good agitation, mix 10 minutes at this temperature, then cool with mixing to room temperature.

Conditioning Baby Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Carnation Mineral Oil (Witco)	10.00
Stearic Acid	5.00
Cetyl Alcohol	1.50
Propylparaben	0.15
Silicone 220 Fluid	4.00
Tech-O 11-075 Concentrated Oat Protein (Beacon CMP)	2.00
B:	
Deionized Water	71.00
Triethanolamine 99%	3.00
Methylparaben	0.15
DMDM Hydantoin	0.20
Propylene Glycol	3.00

Procedure:

Into a beaker, weigh A. Heat with mixing to 75C. In another beaker, weigh B and heat to 75C. With both phases at 75C, add A to B and mix well for 10 minutes, then mix and cool to room temperature.

SOURCE: Witco Corp.: Suggested Formulations

Baby Lotion

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 AEC Octyl Palmitate	2.000g
2 Dervacid 3155	3.000g
3 Cocoa Butter, Refined	1.000g
4 Lasemul 92 AE	2.500g
5 Lipovol PAL	3.000g
Aqueous Phase:	
6 Water; Pure	81.095g
7 Xanthan Gum	0.350g
8 Glycerine BP	1.000g
9 Triethanolamine 99%	0.700g
Preservative Mix:	
10 Nipastat	0.250g
11 Propylene Glycol USP	5.000g
Cooling Cycle:	
12 P. Cocoa butter AA 6780	0.100g
13 C.S. D&C Red 33; 1% Soln	0.005g

Mixing Instructions:

Weigh the items of the Oil Phase into a jacketed vessel and heat to 70/75C with occasional stirring. Meter out the water into the mixing vessel and start heating.

Disperse the Xanthan Gum and heat to 70/75C with continuous mixing.

Add the other items of the Aqueous Phase while heating and mix briefly with the Silverson to smooth the mixture. Remember to premix the Propylene Glycol & Nipastat to aid solubility.

Add the Oils to the water with careful Silverson mixing and mix while cooling. When cool adjust pH, add perfume, mach colour to Master Sample and give a final brief mix with the Silverson.

pH: 7.20-8.00 Viscosity 3/12r: 45-65 SG: 0.985-0.995

Project: JW 2434/Formula Ref.: 974*0

Baby Oil

<u>Stage Material:</u>	<u>Quantity</u>
1 Light Mineral Oil	80.000g
2 AEC Octyl Palmitate	10.000g
3 Lipovol PAL	5.000g
4 Isopropyl Myristate (IPM)	5.000g

Project: JW 2434/Formula: 975*0

SOURCE: A & E Connock Ltd.: Suggested Formulations

Baby Shampoo

	<u>% by Weight</u>
Steol CS-130	30.0
Amphosol CA	20.0
Polysorbate 20	5.0
Kessco PEG 6000 DS	2.0
Sodium Hydroxide (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
D.I. Water	Q.S. to 100.0

Mixing Procedure:

Add the Steol CS-130 and Kessco PEG 6000 DS to D.I. Water. Heat to 60C and mix until the PEG 6000 DS is completely dispersed. Add the Polysorbate 20 and Amphosol CA. Blend well and cool to 30C. Adjust pH to 6.5-7.0 with sodium hydroxide. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Baby Shampoo

	<u>% by Weight</u>
Stepan-Mild SL3	19.0
Steol CS-330	17.5
Amphosol CG	16.5
Kessco PEG 6000 DS	2.0
Citric Acid (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
D.I. Water	Q.S. to 100.0

Mixing Procedure:

Add the first three components to D.I. Water with mixing and heat to 50-60C. Add PEG 6000 DS and mix until all solids have melted. Cool to 35C and adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Baby Shampoo

	<u>% by Weight</u>
Stepan-Mild BSB*	40.0
Distilled Water	Q.S.
Sodium Chloride	Q.S. to 100.0
Citric Acid (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.

Mixing Procedure:

Combine first two ingredients with mixing. Adjust to desired pH (6.5-7.5) with citric acid. Adjust to desired viscosity with sodium chloride. Add remaining ingredients while mixing.

SOURCE: Stepan Co.: Suggested Formulations

Baby Shampoo
(Formula 91-1004)

	<u>% by Weight</u>
Miracare MS-1	50.00
Fragrance and Dye(s)	Q.S.
Benzyl Alcohol	0.15
Dowicil 200 (Dow)	0.15
Citric Acid	Q.S. to pH 6.8-7.2
Water	49.70

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare MS-1. Mix until completely uniform. With smooth agitation, slowly blend in compatible Fragrance and Dye(s). Mix until uniform. Slowly blend in Benzyl Alcohol, Dowicil 200, and Citric Acid as needed to adjust formulation pH to 6.8-7.2.

Typical Properties:

Appearance @ 25C: Clear Liquid

% Non-Volatiles: 19-21

pH: 6.8-7.2

Viscosity @ 25C: 800-2,000 cps

CTFA Identification:

Water, PEG-80 Sorbitan Laurate, Sodium Trideceth Sulfate, Disodium Lauroamphodiacetate, PEG-150 Distearate, Cocamidopropyl Hydroxysultaine, Sodium Laureth-13 Carboxylate, Citric Acid, Fragrance, Benzyl Alcohol, Quaternium-15, Dye(s).

Note: While the suggested Miracare MS-1 Baby Shampoo has been proven to be essentially non-irritating to the eyes, the addition of untested Fragrances, Dyes, and other additives can adversely affect the irritation potential of the resulting formula.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care: Formula 91-1004

Baby Shampoo
(Formula 91-1003)

	<u>% by Weight</u>
Miracare BC-10	38.5
Fragrance and Dye(s)	Q.S.
Dowicil 200 (Dow)	Q.S.
Citric Acid	Q.S. to pH 6.5-7.5
Sodium Chloride	0.5-1.5
Water	60.0

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare BC-10. Mix until completely uniform. With smooth agitation, slowly blend in compatible Fragrance, Dye(s) and Dowicil 200 preservative. Mix until completely uniform. Adjust the pH of the system to 6.5 to 7.5 with Citric Acid as needed. Adjust formulation viscosity to 1,000-2,000 cps with incremental addition of Sodium Chloride as needed.

Typical Properties:

Appearance @ 25C: Clear Liquid
% Non Volatiles: 17-18
pH: 6.5-7.5
Viscosity @ 25C: 1,200-2,000 cps

CTFA Identification:

Water, PEG-80 Sorbitan Laurate, Cocamidopropyl Betaine, Sodium Trideceth Sulfate, Sodium Chloride, Lauroamphoglycinate, PEG-150 Distearate, Sodium Laureth-13 Carboxylate, Fragrance, Citric Acid, Quaternium-15, Tetrasodium EDTA, Dye(s).

Note: While the suggested Miracare BC-10 Baby Shampoo has been proven to be essentially non-irritating to the eyes, the addition of untested Fragrances, Dyes and other additives can adversely affect the irritation potential of the resulting formula.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Diaper Rash Lotion

	<u>% by Weight</u>
Cetearyl alcohol (and) ceteareth-20	8.00
Dimethicone	20.00
PPG-2 myristyl ether propionate	5.00
Carnation	4.00
Stearic acid	10.00
Aloe vera	1.00
Propylene glycol (and) diazolidinyl urea (and) propylparaben	1.00
Sodium citrate	3.00
Nonoxynyl hydroxyethylcellulose	
Water	q.s. 100.00

SOURCE: Witco Corp.: Suggested Formulation

Baby Skin Wash

<u>Ingredients:</u>	<u>Weight%</u>
Water	52.40
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate (28% 2M. E.O.)	18.00
Sodium Trideceth Sulfate	15.00
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.75
Citric Acid (25% Solution)	to pH 6.5
Dimethicone Copolyol (Abil B 8852)	0.25
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Lauryl Glucoside (and) Cocamidopropyl Betaine (Tego Glucosid L 55)	12.50
Sodium Chloride (25% solution)	Q.S.

Procedure:

1. Heat water to 40-50C.
2. Combine ingredients in order - mixing well between additions.
3. Adjust pH and viscosity.

Diaper Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Petrolatum	4.5
Dimethicone (500 cs)	3.0
Cetyl Dimethicone (Abil Wax 9801)	1.5
Octyl Stearate (Tegosoft OS)	5.0
Mineral Oil	4.0
Polyglyceryl-4 Isostearate (Isolan GI-34)	0.5
Hydrogenated Castor Oil	0.8
Synthetic Wax	1.2

Phase B:

Water	76.9
Sodium Chloride	0.6
Preservatives	Q.S.

Phase C:

Fragrance	Q.S.
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Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Baby Wash
(Formula 91-1113)

This ultra-mild skin cleanser formula is ideally suited for babies, children and anyone with sensitive skin. It gently cleans the skin and imparts an elegant, soft afterfeel. It can also be used as a mild bubble bath that is safe for children.

	<u>% By Weight</u>
Miranol BT	25.0
Geropon SBFA-30	10.0
Jaguar C-162	0.3
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Water	64.7

Blending Procedure:

With vigorous agitation, disperse Jaguar C-162 in water. With smooth agitation, adjust formulation pH to 5-6 with Citric Acid as needed. With smooth agitation, blend in Miranol BT and Geropon SBFA-30. Mix until completely uniform. Adjust formulation pH to 6-7 with Citric Acid as needed and add compatible Fragrance, Dye(s) and Preservative.

Typical Formulation Properties:

Appearance @ 25C: Clear Liquid

Viscosity @ 25C: 50-300 cps

pH: 6-7

% Non Volatiles: 13-14

Foam Bath for Children
(Formula 87-0508R)

	<u>% by Weight</u>
Rhodapex ES	6.2
Geropon SBFA-30	14.5
Cellosize QP 30,000 H	1.2
Citric Acid	QS to pH 6.5-7.0
Versene 100 (Dow)	0.1
Fragrance, Dye, Preservative	QS
Water	78.0

Blending Procedure:

Warm water to 50-55C and slowly blend in Rhodapex ES. With rapid but smooth agitation, slowly sift Cellosize QP 30,000 H into water and mix until completely dispersed. Cool to 40-45C with moderate agitation and add Geropon SBFA-30 and Versene 100. Adjust pH of system to 6.5-7.0 with Citric Acid as needed and then add compatible Fragrance, Dye, and Preservative.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulations for Personal Care

Economy Baby Lotion
(Formula 87-0901M)

Water Phase:	<u>% by Weight</u>
A) Methylparaben	0.15
Propylene Glycol	2.50
B) D.I. Water	90.97
C) Carbopol 934 (Goodrich)	0.15
D) Sodium Hydroxide (50% Aq. Solution)	0.13

Oil Phase:	
Dermalcare NI	1.50
Alkamuls MM/M	1.50
Alkamuls GMS	1.00
Stearic Acid TP	2.00
Propylparaben	0.10

Blending Procedure:**Water Phase:**

- A) Disperse Methylparaben in Propylene Glycol. With mixing, heat system until Methylparaben has completely dissolved in Propylene Glycol.
- B) Slowly blend Propylene Glycol mix into Deionized Water. Heat water system to 45-50C.
- C) With rapid but smooth agitation, slowly disperse Carbopol 934 into heated water base. Continue to heat system to 75-80C.
- D) Slowly blend Sodium Hydroxide solution into heated water base. The system should immediately thicken and clear.

Oil Phase:

In a separate mixing vessel combine Oil Phase ingredients and, with gentle heat, warm Oil Phase to 70-75C (avoid scorching). With rapid but smooth agitation, slowly blend heated Oil Phase into heated Water Phase. Once system is uniform, cool to 40-45C with moderate agitation and blend in compatible Fragrance and Dye(s).

Typical Properties:

Appearance (after standing 72 hrs.): Viscous, Smooth Lotion
 pH (10% Aq.): 6.5-7.5

CTFA Identification:

Water, Propylene Glycol, Sodium Stearate, Myristyl Myristate, Cetearyl Alcohol and Ceteareth-20, Glyceryl Stearate, Carbomer 934, Methylparaben, Propylparaben, Fragrance, Dyes.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation
 for Personal Care: Formulation 87-0901M

Shampoo-Baby

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Water	51.30
Cocoamphohydroxy Sultaine	12.00
Calfoam ES-303	20.00
Part B:	
PEG-60 Almond Glyceride	15.00
PEG-150 Pentaerythrityl Tetrastearate	0.50
Part C:	
Germaben II, Fragrance	9.50

Comments about this formula:

1. First mix part A until clear.
2. Melt PEG-60 Almond Glyceride and then mix with PEG-150 Pentaerythrityl Tetrastearate at about 50C.
3. Add part B into part A and stir until uniform.
4. Add fragrance and preservative as needed.
5. Adjust pH if needed.

SOURCE: Pilot Chemical Co.: Formulation SHM-015-01

Baby Shampoo with Olive Oil

<u>Ingredients:</u>	<u>Weight%</u>
Ampholyt JB 130K (Cocamidopropyl Betaine)	15.00
Marlinat CM 100/80 (Laureth-11 Carboxylic Acid)	15.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3.00
Olive Oil	1.00
Antil 141 Liquid (Propylene Glycol (and) PEG-55 Propylene Glycol Oleate)	4.00
Preservative	q.s.
Fragrance	q.s.
Water	up to 100.00

Preparation:

All ingredients are mixed together, heated to 40 degrees C., and stirred until homogeneous.

SOURCE: Huls America Inc.: Formulation 3.5E

Section III

Bath and Shower Products

After Bath Moisturizing Lotion

A mild, smooth, white lotion that boosts contraction and reorganization of collagen fibers with Raffermine to reinforce firmness and elasticity of the skin.

Ingredients:

	%W/W
1. Distilled/Deionized Water	88.97
2. Propylene Glycol	2.50
3. Methylparaben	0.15
4. Acritamer 941 (Carbomer)	0.15
5. Ritapro 300 (Cetearyl Alcohol and Ceteareth-20)	1.50
6. Rita IPM (Isopropyl Myristate)	1.50
7. Rita GMS (Glyceryl Stearate)	1.00
8. Stearic Acid	2.00
9. Propylparaben	0.10
10. NaOH (50% Solution)	0.13
11. Raffermine (Hydrolyzed Soy Flour)	2.00

Compounding Procedure:

Combine items 1-3 and begin mixing. Slowly add item 4 while mixing. Heat to 75C. Combine items 5-9 and heat to 75C. Add item 10 to water. Add oil to water while mixing. Cool to 40C and add item 11.

Ref. No. 120-208A

3-Phase Bath Oil

An appealing tri-layer bath oil which moisturizes the skin and contains Simchin for a luxurious feel.

Ingredients:

	%W/W
1. Mineral Oil 7NF	26.40
2. Simchin Natural (Jojoba Oil)	6.60
3. Diethylphthalate	32.00
4. Fragrance-"Blue Mint"	1.00
5. Methylparaben	q.s.
6. Glycerine	22.67
7. Distilled/Deionized Water	9.07
8. NaCl	2.26
9. Glydant	q.s.

Compounding Procedure:

Dissolve Simchin in mineral oil. Dissolve methylparaben and fragrance in diethylphthalate. Dissolve NaCl and Glydant in water and mix with glycerine. Mix all three phases together.

Ref. No. 121-102

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Bath and Body Wash

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam ES-303	60.10
Sodium Chloride	1.10
Water	5.30
Caltaine C-35	5.00
Calamide C	8.80
Decyl Polyglucose	19.70

Comments about this formula:
 Add ingredients in order listed.
 Formulation GEL-002-01

Bath and Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam ES-302	42.70
Caltaine C-35	4.05
Calamide F	2.55
Salt	0.75
Water (Fragrance, Dye, Citric Acid)	49.95

Comments about this formula:
 Viscosity is 90,000 cPs.
 Total solids 16.25%
 Formulation GEL-003-01

Bath and Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Gel	50
Sodium Chloride	1.0-2.0
Water	Q.S.
Fragrance, Dye, Preservative	0.5

Comments about this formula:
 Add the Sodium Chloride to thicken the formulation.
 Thickens to 90,000 cPs.
 Formulation GEL-004-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Bath Oil

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Cyclomethicone	15.00
A	Phenyl Trimethicone	5.00
A	Mineral Oil	48.80
A	C12-15 Alcohols Benzoate	15.00
A	Fragrance	5.00
A	Oils of Aloha Kuikui Nut Oil	5.00
A	Oils of Aloha Macadamia Nut Oil	5.00
A	Vitamin E	0.20
A	Aloe Oil	1.00

Manufacturing Procedure: Phase A:

Mix all ingredients at room temperature.

A floating bath oil that follows you out of the tub and keeps you feeling silky. The Oils of Aloha Macadamia and Kukui Nut Oil counteracts the excessive hydration from the bath. The high level of fragrance gives a nice bouquet.

SOURCE: Oils of Aloha: Suggested Formulation

Bath and Shower Gel

<u>A:</u>	<u>Wt%</u>
Laureth-7	4.00
Sodium Laureth Sulfate (Phoenate SLES-70)	50.00
Cocamide DEA (Phoenamid CD)	6.00
Disodium Laureth Sulfosuccinate	2.50
Silicone Quaternium-5 (Pecosil SMQ-40)	5.00
Deionized Water	31.48
Disodium EDTA	0.02

<u>B:</u>	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Color	q.s.
Fragrance	q.s.

Procedure:

Add Phase A items in order with slow sweep agitation. Heat if necessary to affect deaeration. When Phase A is below 45C, add Phase B with slow sweep agitation.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Body Shampoo
(Formula 92-0214)

	<u>% by Weight</u>
Alkamide DC 212/S	6.0
Geropon TC-42	15.0
Alkamuls 6000 DS	0.5
Water	Q.S.
Citric Acid	Q.S.
Fragrance, dye(s), preservative	Q.S.

Blending Procedure:

Charge tank with water, Alkamide DC 212/S, Geropon TC-42 and Alkamuls 6000 DS, and mix while heating to 65C. Cool to 35C. Adjust pH to 7.5 by addition of citric acid. Add fragrance, dye(s) and preservative.

Typical Formulation Properties:

Appearance @ 25C: Clear, slightly viscous liquid

Viscosity @ 25C: 1,000-1,500 cps

pH: 7.5

Solids: 11-11.5%

CTFA Identification:

Water, Cocamide DEA, Sodium Methyl Cocoyl Taurate, PEG-150 Distearate, Citric Acid.

Economy Bubble Bath
(Formula 91-1008)

	<u>% by Weight</u>
Miracare MPC	20.0
Citric Acid (to pH 5.5-6.5)	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	1.0-2.0
Water	78.5

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare MPC. Mix until completely uniform. Adjust formulation pH to 5.5-6.5 with Citric Acid as needed. Add compatible Fragrance, Dye(s), and Preservative. Adjust formulation viscosity to desired consistency with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C: Clear Liquid

Viscosity @ 25C: 3,000-4,000 cps

pH: 5.5-6.5

% Non Volatiles: 8-10

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Sodium Chloride, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulations for Personal Care

Bath & Shower Gel

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	50.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.1-0.7
Water	49.6

Comments About this Formula:

Blending Procedure:

With smooth agitation, slowly blend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 15,000-20,000 cps (No. 4 Spindle @ 10rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid

Viscosity @ 25C: 15,000-20,000 cps

pH: 6.0-7.0

% Non Volatiles: 17-19

CTFA Identification: Water, Sodium Laureth Sulfate, Cocamide

DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance,

Preservative, Citric Acid, Dye(s)

Formulation #GEL-001-01

Bath & Shower Gel

<u>Ingredients:</u>	<u>%Wt.</u>
Calfoam ES-302	42.70
Caltaine C-35	4.05
Calamide F	2.55
Salt	0.75
Water (Fragrance, Dye, Citric Acid)	49.95

Comments About this Formula:

Viscosity is 90,000 cPs.

Total solids 16.25%

Formulation #GEL-003-01

Bath & Shower Gel

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Gel	80.0
Sodium Chloride	1.0-2.0
Water	9.5
Fragrance, Dye, Preservative	9.5

Comments About this Formula:

Add the Sodium Chloride to to thicken the formulation.

Thickens to 90,000 cPs.

Formulation #GEL-004-01

SOURCE: Pilot Chemical Co.: Formulary

Bubble Bath-Children's

<u>Ingredients:</u>	<u>% Wt.</u>
Water	39.45
Calfoam ES-303	40.00
Calsoft T-60	14.00
Calamide C	5.00
Citric Acid	0.15
Disodium EDTA	1.00
Preservative	0.05
Perfume, Color	0.10

Comments About this Formula:

1. Add the first three ingredients and stir; the blend becomes quite viscous when the amide is added.
 2. Add Citric Acid to adjust the pH to 6.
- Formulation #BUB-001-01

Bubble Bath-Liquid

<u>Ingredients:</u>	<u>% Wt.</u>
Water	48.50
NaCl	1.00
Calfoam ES-303	40.00
Calamide LL	5.00
PEG 7 Glyceryl Cocoate	2.50
Cocamidopropylamine Oxide	3.00
Perfume, Dye(s), Preservatives	9.50

Comments About this Formula:

1. Mix the ingredients in order listed.
 2. Adjust the amount of salt as needed to control the viscosity.
 3. The blend of amide and amine oxide provides a high level of detergency with minimum irritation potential not possible in a strictly high amide blend.
- Formulation #BUB-002-01

Bubble Bath, Emollient

<u>Ingredients:</u>	<u>%Wt.</u>
Water	31.70
Calfoam ES-302	60.00
PEG 7 Glyceryl Cocoate	5.00
Calamide LL	3.00
Perfume, Dye(s), Preservative	0.30

Comments About this Formula:

1. Mix all the ingredients in order listed.
 2. The product is clear.
- Formulation #BUB-003-01

SOURCE: Pilot Chemical Co.: Formulary

Bubble Bath - Economy Foam Bath

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	15.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	85.00

Comments about this formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dyes(s).

Formulation BUB-004-01

Bubble Bath - Moisturizing Foam Bath

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	37.00
Glycerine	1.50
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.2-0.8
Water	61.00

Comments about this formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear and glycerine into water. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 5,000-8,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Glycerine, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation BUB-005-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Bubble Bath - Premium Foam Bath

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	25.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	75.00

Comments about this formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamido propyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation BUB-006-01

Bath and Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	50.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.10-0.70
Water	49.60

Comments about this formula:

Blending Procedure:

With smooth agitation, slowly blend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 15,000-20,000 cps (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid
 Viscosity @ 25C: 15,000-20,000 cps
 pH: 6.0-7.0
 % Non Volatiles: 17-19

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation No. GEL-001-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Clear Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Steol CS-330	57.7
Ninol 30-LL	3.5
Amphosol CG	5.0
Tween 20	0.30
Versene 100	0.20
Glycerin	0.5
Preservative, Fragrance, Dye	Q.S.

Mixing Procedure:

Combine all ingredients with mixing.
Adjust pH to ~6.7

Clear Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Bio-Terge AS-40	37.50
Ninol 55-LL	4.0
Steol CS-330	28.50
Kessco PEG 6000DS	1.0
Preservative, Dye, Fragrance	Q.S.
Citric Acid (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first five ingredients in a container and heat to 165F with mixing. Keep temperature constant until all solid particles have melted. With mixing, cool to 110F, add preservative, fragrance and dye.

Adjust pH to 6.0-6.5 with 50% citric acid.
Adjust viscosity with sodium chloride.

Foaming Bath Powder

	<u>% by Weight</u>
Stepanol ME-Dry	19.00
Sodium Bicarbonate	21.00
Sodium Sesquicarbonate	44.85
Lathanol LAL	11.00
Propyl Paraben	0.15
PPG-12-PEG-50 Lanolin	3.00
Fragrance	1.00

Mixing Procedure:

Combine first five ingredients in a container with lid and mix until uniform. Mix following two ingredients in separate container until uniform. Slowly combine all ingredients while mixing. Store in sealed containers.

SOURCE: Stepan Co.; Suggested Formulations

Creamy Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
Sodium Cocoyl Isethionate	2.37
Water	52.28
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate (28% 2M. E.O.)	25.00
Sodium Lauryl Sulfate (28%)	10.00
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
DATEM (Amilan GST 40)	2.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Cocamidopropyl Betaine (Tego Betaine F50)	5.00
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	2.00
Preservatives	Q.S.
Sodium Chloride: Adjust to desired viscosity	
Citric Acid (10%): Adjust to pH 5.5-6.0 if needed	
Procedure:	
1. Dissolve Sodium Cocoyl Isethionate in warm water at 60C.	
2. Add Sodium Lauryl Sulfate, Sodium Laureth Sulfate.	
3. Cool to 40C.	
4. Add remaining ingredients in order as listed, stirring between each addition.	
5. Cool to 30-35C. Add Tego Pearl N 100 and preservatives.	
6. Adjust pH and viscosity.	

Skin Conditioning Body Shampoo
(cold process)

<u>Ingredients:</u>	<u>Weight%</u>
Tetrasodium EDTA	0.10
Water	44.25
Ammonium Laureth Sulfate - (28% 2M. E.O.)	25.00
Ammonium Lauryl Sulfate (28%)	20.00
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.50
Cocamidopropyl Betaine (Tego Betaine F 50)	5.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
PEG-30 Glyceryl Laurate (Tagat L)	1.00
Dimethicone Copolyol (Abil B 8852)	0.50
Water (and) Ethoxydiglycol (and) Propylene Glycol (and) Butylene Glycol (and) Matricaria Extract (and) Sage Extract (and) Yarrow Extract (and) Balm Mint Extract (and) Rosemary Extract (and) Restharrow Extract (and) Coltsfoot Extract (and) Wild Thyme Extract (and) Horsetail Extract (and) Fructose (and) Althea Extract (Extrapone 3 Special 2/789490 Dragoco)	0.15
Citric Acid (25% solution)	to pH 6
Preservatives	Q.S.
Fragrance	Q.S.
Ammonium Chloride (25% solution)	as needed
Procedure:	
Add ingredients in order, mixing between additions. Adjust pH. Adjust viscosity.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Deodorizing Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepan-Mild LSB	60.00
Stepanol WAT	25.00
Ninol 96-SL	4.00
Propylene Glycol	1.5
Irgasan DP-300	0.5
Kessco PEG 400 ML	2.0
Hydrolyzed Collagen	0.5
Preservative, Dye, Fragrance	Q.S.
Sodium Hydroxide (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first four ingredients in a container and heat to 165F with mixing. When uniform, cool to 110F. Meanwhile, in a separate container, combine items 5 and 6 mixing until item 6 is dissolved. Add to main mixture. While mixing, add remaining items.

Adjust pH to 6.0-6.5 with 50% sodium hydroxide.

Adjust viscosity with sodium chloride.

Deodorizing Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepan-Mild LSB	60.00
Stapanol WAT	25.00
Ninol 96-SL	4.00
Propylene Glycol	1.5
Irgasan DP-300	0.5
Kessco PEG 400 ML	2.0
Hydrolyzed Collagen	0.5
Preservative, Dye, Fragrance	Q.S.
Sodium Hydroxide (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first four ingredients in a container and heat to 165F with mixing. When uniform, cool to 110F. Meanwhile in a separate container, combine Propylene Glycol and Irgasan DP-300, and mix until Irgasan DP-300 is dissolved. Add to main mixture. While mixing, add remaining items.

Adjust pH to 6.0-6.5 with 50% sodium hydroxide.

Adjust viscosity with sodium chloride.

SOURCE: Stepan Co.: Suggested Formulations

Economy Foam Bath

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	15.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	85.00

Comments About this Formula:**Blending Procedure:**

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #BUB-004-001

Moisturizing Foam Bath

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	37.00
Glycerine	1.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.2-0.8
Water	61.00

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear and glycerine into water. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 5,000-8,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Glycerine, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #BUB-005-01

SOURCE: Pilot Chemical Co.: Formulary

Hand and Bath Gel

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	50.15
Tetrasodium EDTA	0.10
Sodium Isethionate	3.00
Sodium Lauryl Sulfate (30%)	15.00
Disodium Laureth-3 Sulfosuccinate	10.00
Dimethicone Copolyol (Abil B 8851)	0.75
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Polyglyceryl-4 Isostearate (Isolan GI 34)	0.50
Glycerin	3.00
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.00
Cocoamidopropyl Betaine (Tego Betaine F 50)	11.75
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	2.50
Sodium Chloride	Q.S.
Procedure:	
1. Dissolve the Tetrasodium EDTA in the water.	
2. Add ingredients in order, mixing between additions. Avoid air entrapment.	
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.	
4. Add the Cocamidopropyl Betaine.	
5. Adjust viscosity with the 25% solution of Sodium Chloride.	

Creamy "2 in 1" Body Wash

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Glycol Distearate (Tegin EGS)	2.50
Myristic Acid	4.00
Jobaba Oil	5.00
Sodium Laureth Sulfate (28% 2M. E.O.)	45.00
Water	10.00
Phase B:	
Water	19.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.00
Phase C:	
Propylene Glycol (and) PEG-55 Propylene Glycol Oleate (Antil 141L)	2.50
Fragrance, Preservative, etc.	Q.S.
Phase D:	
Cocamidopropyl Betaine (Tego Betaine F 50)	10.00
Procedure:	

1. Heat Phase A to approximately 70C while mixing (above the melting point of Tegin EGS).
2. Heat the ingredients of Phase B to the same temperature as Phase A.
3. Stir Phase B into Phase A. Cool to 40C.
4. Add Phase C. Mix well. Avoid air entrapment.
5. Add Phase D with stirring. Avoid air entrapment.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Luxury Shower Gelee

A clear, viscous, rich-lathering shampoo for hair and body which cleanses gently, and leaves a soft, smooth afterfeel.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	41.6
	TEA Lauryl Sulfate (Stepanol WAT)	15.6
	Na4EDTA	0.2
	Imidazolidinyl Urea (Germall 115)	0.2
	Methyl Paraben	0.2
	Cocamidopropyl Amine Oxide (Mazox CAPA)	10.4
	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	13.0
	Ammonium Laureth Sulfate (Alfonic 1412-A)	13.0
B	Cocamide MEA (Monamid CMA)	2.3
	Cocamide DEA (Mazamide JT-128)	2.6
	Fragrance	0.5
C	Citric Acid	0.4

pH: 6.3-6.8

Viscosity: 7500-10,000 cps (Brookfield #3 @ 6 rpm)

Appearance: Clear, viscous liquid

Procedure:

Mix part A ingredients in main vessel until clear and uniform. In a side vessel, premix part B, warming to 40C to dissolve the cocamide MEA. Add B to A, mixing until clear and uniform. Adjust pH.

Formulation F-105

Combo Bar

Modification of an example in US Patent #5,041,233

<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
Tallow/Coco Soap (85/15)	55.6
Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-75)	29.3
Water	10.3
Sodium Isethionate (Witconate NIS)	2.0
Sodium Chloride	0.4
Fragrance	1.0
TiO2	1.0
Na3HEDTA	0.2
BHT	0.2

Formulation M104

SOURCE: PPG Industries, Inc.: Suggested Formulations

Mild Body Shampoo

This pearlized formula flash-foams to a voluminous, lacy lather and leaves skin feeling soft and smooth, not dry and tight.

<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
Deionized Water	52.6
Sodium Cocoyl Isethionate (Jordapon CI-UP)	7.9
Sodium C12-15 Pareth-15 Sulfonate (Avanel S-150 CG)	4.2
Ammonium Lauryl Sulfate (Stepanol AM)	10.1
Ammonium Laureth Sulfate (Alfonic 1412-A)	7.5
Glycol Stearate (Mapeg EGMS)	0.7
Tetrasodium EDTA	0.2
Methyl Paraben	0.2
Imidazolidinyl Urea (Germall 115)	0.2
Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	15.1
Soyamide DEA (Mazamide SS-10)	1.2
Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 6600 cps (Brookfield #2 @ 3rpm)

Appearance: Clear, pale straw-colored liquid

Procedure:

Mix the first eight ingredients together, heating to 65C until all solids are dissolved. Add the last four ingredients in order, mixing until uniform. Adjust pH with citric acid or triethanolamine, if necessary.

SOURCE: PPG Industries, Inc.: Formulation F-204

Hand Cleaning Cream with Solvent

	<u>Wt%</u>
Part A:	
Zusolat 1005/85	10.5
Shellsol T	34.5
Paraffin oil	9.0
Aerosil 200	1.0
Part B:	
Oxypon 2145	2.5
Extrakt 52	15.0
Water, perfume, preservative	27.5

Mix part A and part B separately.

Finally add part B to part A whilst stirring.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 27/2

Mild Body Shampoo

This high-viscosity shower gelee is suitable for packaging in tubes. It flashes into a dense, rich, soft-feeling lather which rinses easily and leaves a smooth afterfeel on the skin.

<u>Part:</u>	<u>Ingredient(Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	52.6
	Polyquaternium-10 (Ucare Polymer JR-125)	0.3
B	Ammonium Lauryl Sulfate (Stepanol AM)	10.1
	Sodium C12-15 Pareth-15 Sulfonate (Avanel S-150 CG)	4.2
	Ammonium Laureth Sulfate (Alfonic 1412-A)	7.5
	Sodium Cocoyl Isethionate (Jordapon CI-UP)	7.9
	Na4EDTA	0.2
	Methyl Paraben	0.2
	Imidazolidinyl Urea (Germa11 115)	0.2
C	Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	15.1
	Soyamide DEA (Mazamide SS-10)	1.2
	Fragrance	0.5
	Citric Acid	Q.S.

pH: 6.3-6.8

Viscosity: 19,900 cps (Brookfield #3 @ 3rpm)

Appearance: Clear, viscous yellow liquid

Procedure:

Disperse the polyquaternium-10 in the part A water with good propellor agitation. Continue mixing for at least 20 minutes while heating to 40C. Add the part B ingredients in order, maintaining the 40C temperature until all solids are dissolved. Add the Mafo CSB-50, the Mazamide SS-10, and the fragrance in order, then adjust the pH.

SOURCE: PPG Industries, Inc.: Formulation F-107

Hand Washing Paste

	<u>Wt%</u>
Sulfetal TC 50	4.0
Purton SFD	1.0
Carboxymethyl cellulose	1.5
Soft soap	12.0
Quartz sand	60.0
China clay	6.0
Sodium tripolyphosphate	1.0
q.s. to make 100%: water, perfume, preservative	

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B22/2

Moisturizing Body Wash

	<u>% by Weight</u>
Steol CS-230	30.00
Stepanol AM-V	25.00
Stepanol WA-Extra	23.00
Ninol 30-LL	4.5
EDTA	0.2
Stepan TAB-2	5.0
Silicone DC200	1.0
Avocado Oil	0.5
Maprosyl 30	10.0
Hydrolyzed Corn Protein	0.5
Preservative, Dye, Fragrance	Q.S.
Citric Acid (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first five ingredients in a container and heat to 165-170F with mixing. In a separate container, heat Stepan TAB-2, Silicone DC200, and Avocado Oil to 165-170F with mixing. When melted, add to first five ingredients. Mix thoroughly. Cool to 110F, then add the remaining ingredients (Maprosyl 30, Hydrolyzed corn protein, preservative, dye, and fragrance) with mixing.

Adjust pH to 5.0-6.2 with 50% citric acid.

Adjust viscosity with sodium chloride.

Pearlescent Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Bio-Terge AS-40	37.50
Kessco EGMS	1.00
Ninol 55-LL	4.00
Steol CS-330	28.50
Kessco PEG 6000DS	1.00
Preservative, Dye, Fragrance	Q.S.
Citric Acid (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first six ingredients in a container and heat to 165F with mixing. Keep temperature constant for one half hour. With mixing, cool to 110F, add preservative, fragrance and dye.

Adjust pH to 6.0-6.5 with 50% citric acid.

Adjust viscosity with sodium chloride.

SOURCE: Stepan Co.: Suggested Formulations

Pearlescent Shower Gel

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Wt</u>
A	Deionized Water	65.50
A	Sodium Lauryl Sulfate	20.00
A	Ammonium Laureth Sulfate	8.00
A	Cocamid DEA	5.00
A	Glycol Stearate	1.50
A	Preservative	QS
A	Oils of Aloha Kukui Nut Oil	0.50
B	Sodium Chloride	1.00
B	Perfume	0.25

Manufacturing Procedure:**Phase A:**

Combine all ingredients except preservative and perfume at 60C.
Cool to 40C.

Phase B.

Add preservative and perfume. Package.

Here the function of the Kukui Nut Oil is to replenish the oils lost on the hair so that it does not get overly dry.
Using too much Oil would cut down on foaming.

After Bath Talc

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Wt</u>
A	Talc	92.50
B	Perfume Oil	5.00
B	PPG-20 Methyl Glucose Ether	1.50
B	Oils of Aloha Macadamia Nut Oil	1.00

Manufacturing Procedure:

Combine Phase B and when uniform blend into talc.

Here the Oils of Aloha Macadamia Nut Oil helps the talc spread and cuts down on the dry feeling of the skin. Leaves a nice smooth feel.

SOURCE: Oils of Aloha: Suggested FormulationsSpreading Bath Oil

<u>Formula:</u>	<u>% by Weight</u>
Adol 66	7.00
Carnation Mineral Oil (Witco)	45.00
Isopropyl Myristate	45.00
Arosurf 66-PE 12	1.00
Fragrance	2.00

Procedure:

Mix cold in order listed.

SOURCE: Witco Corp.: Suggested Formulation

Pearlized Shower Gel

A pearlized body shampoo with Pationic ISL for moisture, Ritataine for mildness, and Polyquta 400 for skin conditioning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium C14-16 Olefin Sulfonate	37.50
2. Propylene Glycol	5.00
3. Rita EGMS (Glycol Stearate)	2.00
4. Rita EGDS (Glycol Distearate)	2.00
5. Pationic ISL (Sodium Isosteatoyl Lactylate)	3.00
6. Ritataine (Cocamidopropyl Betaine)	5.00
7. Ritamide C (Cocamide DEA)	3.00
8. Polyquta 400 (Polyquaternium-10)	1.00
9. Ritaloe 200M (Aloe Vera Gel)	0.50
10. Distilled/Deionized Water	40.80
11. Glydant	0.20

Compounding Procedure:

Dissolve items 8 and 9 in item 10. Combine with items 1 and 2 and heat to 70C. Add items 3-7 and mix until uniform. Allow to cool. Add item 11.

Ref. No. 121-145

Shower Gel

A shower gel containing Polyquta 400 for viscosity and conditioning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	42.60
2. Sodium Lauryl Sulfate	25.00
3. Ammonium Lauryl Sulfate	25.00
4. Cocamidopropyl Betaine	3.00
5. Lauramide DEA	3.00
6. Polyquta 400 (Polyquaternium-10)	1.00
7. Citric Acid 50%	0.20
8. Glydant	0.20

Compounding Procedure:

Heat water to 70C and add Polyquta 400. Mix until dissolved. Add items 2-5 while stirring. Allow to cool. Add items 7-8.

Ref. No. 121-108A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Premium Foam Bath

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	25.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	75.00

Comments About this Formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamido propyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #BUB-006-01

Bath Body Wash

<u>Ingredients:</u>	<u>%Wt.</u>
Calfoam ES-303	60.10
Sodium Chloride	1.10
Water	5.30
Caltaine C-35	5.00
Calamide C	8.80
Decyl Polyglucose	19.70

Formulation #GEL-002-01

SOURCE: Pilot Chemical Co.: Formulary

Rona/Shampoo/Shower Gel

Use of titanated mica pearl pigments in shampoo formulations creates iridescent effects which cannot be achieved with conventional stearate pearling agents. Rona's Timiron Super Colors, which derive their effect from light interference, reflect single colors across the visible spectrum. Timiron Super Gold produces a gold luster, Timiron Super Red a red reflectance, and so on. Combinations of the Super Colors and water-soluble dyes will result in unique "two-color" effects, whose appearance varies with the angle of viewing.

Rona has developed a system for suspending mica pigments in detergent formulations. An increase in viscosity alone will not prevent settling; a thixotropic gel is needed. The combination of Veegum HV (Mg Al Silicate) and Klucel G (hydroxypropyl-cellulose) yields a gel network that is compatible with many detergent systems: the Veegum provides the suspension properties, while the Klucel acts as a protective colloid to prevent agglomeration of the Veegum.

The detergent systems containing the Veegum/Klucel combination can be manufactured via cold process. The pre-homogenization step to swell the Veegum can be accelerated with heat. Because Veegum is sensitive to salts, lack of agglomeration of the Veegum with the desired detergent level and salt content should be insured before proceeding with formulation.

Pearlized Bath Salts

<u>Phase #:</u>		<u>Wt%</u>
1	Bath Crystals	99.00
1	Pearl pigment (e.g. Colorona Magenta)	1.00
2	Luviskol VA641	0.40
2	Isopropanol	3.60
2	Fragrance	q.s.

Procedure:

Combine phase 1 with gentle tumbling agitation. Combine phase 2. When homogenous, spray onto phase 1 with continuous tumbling agitation. Evaporate solvent via vacuum or tray drying.

SOURCE: Rona/EM Industries, Inc.: Formulation SD123

Shebu Shower Gelee

A bath gelee with a smooth unique feel from Pationic ISL and Shebu is a skin conditioner.

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth Sulfate (ES-3)	53.00
2. Ritamide C (Cocamide DEA)	4.00
3. Shebu WS (PEG-50 Shea Butter)	3.00
4. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
5. Glydant Plus	0.20
6. Distilled/Deionized Water	36.20
7. Fragrance	0.10
8. Ritapeg 150 DS (PEG-150 Distearate)	0.50

Compounding Procedure:

Heat ingredients 1-6 to 65C with agitation. Cool to 43C and add perfume. Adjust viscosity with Sodium Chloride and pH with lactic acid.

Ref. No. 121-80A

Shebu Shower Gelee

A bath gelee with a smooth unique feel. Shebu is a skin conditioner.

<u>Ingredients:</u>	<u>W/W</u>
1. Sodium Laureth Sulfate (ES-3)	53.00
2. Ritamide C (Cocamide DEA)	4.00
3. Shebu WS (PEG-50 Shea Butter)	3.00
4. Glydant Plus	0.20
5. Distilled/Deionized Water	39.20
6. Fragrance	0.10
7. Ritapeg 150 DS (PEG-150 Distearate)	0.50

Compounding Procedure:

Heat ingredients 1-6 to 65C with agitation. Cool to 43C and add perfume. Adjust viscosity with Sodium Chloride and pH with lactic acid.

Ref. No. 121-80B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shower Gel with Mbaruti Oil

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	52.245g
2 EDTA, Disodium Salt	0.200g
3 Germaben 11-E	0.750g
4 Sodium Laureth Sulfate (SLES)	37.000g
5 Gafquat 734	0.200g
6 Mbaruti Oil (Mexican Poppy Oil)	0.100g
7 Fragrance	0.300g
Stage B:	
8 D-Panthenol 75%	0.200g
9 Cocamide CDE	2.000g
10 Empigen BB	1.000g
Stage D:	
11 Tego Pearl S33	3.000g
12 Phosphoric Acid	0.045g
13 C.S. D&C Yellow No. 6; 1% Soln	0.140g
14 C.S. FD&C Blue No. 1; 1% Soln	0.700g
15 Sodium Chloride (salt)	2.750g

Mixing Instructions:

Meter out the water and add each item in turn, mixing well after each addition.

Adjust the pH with phosphoric (or Citric) acid and colour match before finally adjusting the viscosity by adding Sodium Chloride.

Project JW 2422/Formula Ref. 936* 1

Shower Gel

<u>Stage Material:</u>	<u>Quantity</u>
H.E. Ginseng	0.000g
Pre-Mix 1:	
1 Fragrance	0.500g
2 Empigen BB	5.000g
3 Irgasan DP300	0.100g
Stage A:	
4 Water; Pure	44.550g
5 Sodium Laureth Sulfate (SLES)	45.000g
Stage B:	
6 Empilan E 2502	1.200g
7 Citric Acid BP	0.250g
8 Sodium Chloride (salt)	2.200g
9 H.E. Chamomile	1.000g
10 Colours as required	0.200g

Mixing Instructions: Make in order.

Project JW 0263/Formula Ref.: 782*0

SOURCE: A&E Connock: Suggested Formulations

Shower Gel with Softigen 767

<u>Ingredients:</u>	<u>Weight%</u>
A. Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	5.00
Marlinat 242/28 (Sodium Laureth Sulfate)	38.00
Ampholyt JB 130/K (Cocamidopropyl Betaine)	10.00
Elfacos GT 282 S (Hydrogenated Talloweth-60 Myristyl Glycol)	6.00
Color	q.s.
Preservative	q.s.
Water, up to	100.00
Fragrance	q.s.

Preparation:

All the materials in (A) are mixed together, heated up to about 60 degrees C, and stirred during cooling to about 30 degrees C. The perfume is then added.

Formulation 5.4S

Shower Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
A) Marlinat 242/28 (Sodium Laureth Sulfate)	41.00
Ampholyt JB 130K (Cocamidopropyl Betaine)	13.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	2.00
Dehyquart LT (Laurtrimonium Chloride)	1.50
Panthenol	1.00
Preservative	q.s.
Sodium Chloride	1.00
Water	Up to 100.00
B) Fragrance Limobain A.116.830	0.50

Preparation:

(A) is mixed together and melted at about 50 degrees C.

(B) is added at about 35 degrees C.

Formulation 5.4T

SOURCE: Huls America Inc.: Suggested Formulations

Skin Conditioning Bath Gelee with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water (100C)	10.00
2. Ritavena 5	2.00
Part B:	
3. Sodium Laureth Sulfate	53.00
4. Distilled Water	21.15
5. Monamid 150 ADD	4.00
6. Ritawax 15	3.00
7. Pationic ISL	3.00
8. Ritapeg 150 DS	0.50
9. Methylparaben	0.15
Part C:	
10. Fragrance	1.00
11. Kathon CG	0.50
12. Sodium Chloride (25% Solution)	+ -1.00
13. Patlac LA (44% Solution)	+ -0.70

Compounding Procedure:

Heat Part B to 165F with mixing. Premix Part A in a blender for 2 minutes. Add to Part B. Mix until uniform. Cool to 120F. Add Part C. Adjust pH to 6.0-6.5 using Patlac LA (44% Solution). Adjust viscosity with Sodium Chloride (25% Solution).

SOURCE: R.I.T.A. Corp.: Ritavena 5: Formulation 111-203

Dispersible Bath Oil

<u>Formula:</u>	<u>Wt%</u>
Crovol PK-40	9.00
Procetyl 10	16.00
Alcohol SD-40	10.00
Carnation Mineral Oil	64.00
Fragrance	q.s.

Procedure:

Straight blend all ingredients until clear.

Floating Bath-Oil Bar

<u>Formula:</u>	<u>Wt%</u>
Witconol APM	69.0
Carnation Mineral Oil	10.0
Propylene Glycol	10.0
Sodium Stearate (Witco)	8.0
Water	3.0
Color, Perfume	q.s.

procedure:

Disperse sodium stearate C-1 in Witconol APM. Add Carnation mineral oil, propylene glycol and water. Heat to 80 to 85C. Stir until clear. Cool with stirring to 77C and add color and perfume. Pour into molds at 73C.

SOURCE: Witco Corp.: Suggested Formulations

Washing Lotion

With a bacteriostatic effect, clear, 9.9% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Octopirox	0.20
B Genapol AMG	25.00
C Fragrance	0.30
Glucamate DOE 120	1.00
Dyestuff solution	q.s.
Preservative	q.s.
D Allantoin	0.20
E Water	63.30
F Genagen CAB	10.00

Procedure:

- 1 Dissolve A in B.
- 2 Stir the components of C one after another into 1.
- 3 Dissolve D in E while heating slightly.
- 4 Add 3 to 1.
- 5 If necessary adjust the pH.
- 6 Adjust the viscosity with F.

Formula A II/4022

Washing Lotion

Clear, 10.5% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon KCG	30.00
B Fragrance	0.30
C Water	55.20
Glucamate DOE 120	3.00
Magnesium chloride	1.50
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB	10.00

Procedure:

- 1 Dissolve B in A.
- 2 Stir the components of C one after another into 1.
- 3 If necessary adjust the pH.

Formula A II/4021

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

2 in 1 Shower Gel and Body Lotion
24.5% active ingredient

<u>Recipe:</u>		<u>Wt%</u>
A	Emulsogen LP	2.00
	Genapol L-3	3.00
	Cetiol HE	2.00
	Soybean oil	3.00
	Isopropyl palmitate	3.00
B	Prifac 2942	4.00
C	Hostapon SCI	2.50
	Genapol LRO liquid	25.00
	Genapol AMG	15.00
	Fragrance	1.00
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00
D	Polymer JR 400	0.50
	Allantoin	0.30
E	Water	32.70

Procedure:

1. Dissolve B in A while heating gently.
2. Stir the components of C in succession into 1, which should still be warm.
3. Dissolve the components of D in E while heating gently.
4. Stir 3 into 2.
5. Homogenize.

Formula A I/8065

Creamy Bath Oil
Clear, low viscosity

<u>Recipe:</u>		<u>Wt%</u>
A	Hostaphat KL 340 N	2.00
	Emulsogen LP	2.00
	Mineral oil, high viscosity	53.00
	Soybean oil	10.00
	Isopropyl palmitate	30.00
	Fragrance	3.00
	Dyestuff solution	q.s.

Procedure:

Mix together all the components in any sequence at room temperature.

Formula A XV/1010

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Section IV

Beauty Aids

Aloe Vera Cream Scrub

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	65.95
Aloe Vera Gel	1.00
B:	
Propylene Glycol	2.00
Methylparaben	0.20
Ethylparaben	0.15
C:	
Glyceryl Stearate SE	5.00
Carnation Mineral Oil (Witco)	5.00
Safflower Oil	1.00
Sesame Oil	1.00
Squalane	1.00
Diethyl Adipate (and) Octyl Stearate (and) Octyl Palmitate (Wickhen)	1.00
Stearic Acid	2.50
Cetyl Alcohol	0.50
Methocel 40-100	0.50
D:	
Deionized Water	1.00
Triethanolamine	1.00
E:	
Color	q.s.
F:	
Perfume Oil	0.10
G:	
Deionized Water	1.00
Dowicil 200 Antimicrobial	0.10
H:	
Polyethylene 9A	10.00

Procedure:

Melt water into vessel, add aloe vera, mix and begin heating to 80C. In separate vessel, prepare B by heating propylene glycol; add parabens and when dissolved add to A. Combine with batch and mix for 5 mins. Add D and begin to cool. Add E, then F when batch is below 45C. Add G and sprinkle in H.

Moisture Stick Base

<u>Formula:</u>	<u>% by Weight</u>
Blandol Mineral Oil (Witco)	50
Rosswax 26-1152	28
Rosswax 15-1182	2
Rosswax 1824	10
Amerlate P	10

Procedure:

Melt ingredients in a kettle at 170F under agitation. When mixed thoroughly, pour into molds.

SOURCE: Witco Corp.: Suggested Formulations

Aloe Vera Moisturizer

Excellent feel, containing Ritaloe for skin conditioning and Clariskin for preventing and attenuating age spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00
2. Lanolin USP X-Tra Deo	0.50
3. Mineral Oil (Britol 9NF)	8.00
4. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)	2.00
5. Stearic Acid	4.00
6. Ritasol (Isopropyl Lanolate)	1.00
7. Ritaceti (Cetyl Esters)	1.00
8. Rita GMS (Glyceryl Stearate)	4.00
9. Triethanolamine 50%	1.00
10. Glycerine	2.00
11. Propylene Glycol	2.00
12. Methyl Parahydroxy Benzoate	0.30
13. Propyl Parahydroxy Benzoate	0.10
14. Ritaloe 200M (Aloe Vera Gel)	1.00
15. Sorbitol 70%	2.00
16. Clariskin (Yeast Extract)	5.00
17. Perfume	q.s.
18. Distilled/Deionized Water	64.10

Compounding Procedure:

Mix items 1-8 and heat to 80C. Combine items 9-15 and 18, and heat to 80C. Slowly add water phase to oil phase with agitation. Cool with gentle agitation to 45C. Add item 16-17 and cool to 40C.

Ref. No. 122-83B

Liposome Gel

A soothing gel combining the benefits of vitamins A, C and E in a synergistic and effective liposome system with hydrolyzed soy protein.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	87.40
2. Acritamer 940 (Carbomer 940)	0.50
3. Xanthan Gum	0.10
4. 1,3 Butylene Glycol	5.00
5. Ritasil 190 (Dimethicone Copolyol)	0.10
6. Shebu WS (Shea Butter)	1.00
7. TEA @ 99%	0.40
8. Promois WS (Hydrolyzed Soy Protein)	0.20
9. Glydant	0.20
10. Fragrance	0.10
11. Rovisome ACE (Vitamin Blend)	5.00

Compounding Procedure:

Disperse item 2 in water. Add item 3 and mix until dissolved. Add items 4,5 and 6 separately. Add TEA until batch thickens. Add items 8,9,10 and 11. The pH of a gel is 5.5.

Ref. No. 121-95

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Anti-Wrinkle Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	87.40
2. Acritamer 940 (Carbomer 940)	0.50
3. Xanthan Gum	0.10
4. 1,3 Butylene Glycol	5.00
5. Ritasil 190 (Dimethicone Copolyol)	0.10
6. Shebu WS (Shebu Butter)	1.00
7. TEA @ 99%	0.40
8. Promois ECP (Collagen)	0.20
9. Glydant	0.20
10. Fragrance	0.10
11. Tensine (Wheat Protein)	5.00

Compounding Procedure:

Disperse item 2 in water. Add item 3 and mix until dissolved. Add items 4, 5 and 6 separately. Add TEA until batch thickens. Add items 8, 9, 10 and 11. The pH of a gel is 5.5.

Ref. No. 122-103A

Facial Firming Gel

An oil-free formulation that rehydrates the skin and protects against skin relaxation and wrinkles with vital proteins.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	60.50
2. Acritamer 940 (Carbomer)	0.80
3. Distilled/Deionized Water	27.90
4. Propylene Glycol	5.00
5. Disodium EDTA	0.20
6. Triethanolamine (99%)	q.s.
7. Tensine (Wheat Protein)	5.00
8. Reductine (Oat Protein)	1.00
9. BioCare SA (Albumen and Hyaluric Acid and Dextran Sulfate)	0.10
10. Glydant	0.50
11. Blue Dye	q.s.

Compounding Procedure:

Slowly disperse Acritamer into water with rapid agitation. Mix until well dispersed. Add items 3-5. With slow mixing add item 6. Add items 7-10 and mix.

Ref. No. 122-95

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Biorepair Skin Gel

This white gel with emollients has a good penetration with a non-oily afterfeel. Hyasol-BT delivers moisture to the skin. Repair function is provided by Fitobroside (lipid barrier) and Immucell (activation of cell respiration).

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Deionized Water	70.40
2	Glycerin	5.00
3	Hamamelis Extract	5.00
4	D-Panthenol 50P	1.00
5	Phenonip	0.30
6	Carbopol 1342	0.60
7	Natrosol 250 HR	0.30
8	Luviskol K90	0.10
9	B) Sodium Hydroxide 18% Solution	2.70
10	C) Isopropyl Myristate	3.00
11	Bisabolol	0.50
12	Antarox CO 630	2.00
13	D) Fitobroside	3.00
14	Immucell	3.00
15	Hyasol-BT	3.00
16	Fragrance	0.10

Procedure:

Dissolve items 2-8 in water (1). Neutralize with phase B). Mix phase C and incorporate in the resulting gel. A white gel is obtained. Finally add items 13-16 one after another.
Application No. D 009.A/04.93

Anti-Aging Leave On Mask

This refreshing quick mask accelerates skin cell turnover (Immucell) and strengthens the weakened lipid barrier (Lactomide)

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Deionized Water	76.90
2	Glycerin	5.00
3	Phenonip	0.30
4	Imidazolidinyl Urea	0.20
5	Ultrez 10	0.30
6	Triethanolamine	0.30
7	Abil B 8843	2.00
8	Amerchol L 101	5.00
9	Immucell	5.00
10	Lactomide	5.00

Procedure:

Dissolve items 2-5 in water (1). Neutralize with Triethanolamine (6) to pH 5.5-6.0. Finally incorporate items 7-10 under stirring one after another.
Application No. D 031.C/01.96

SOURCE: Pentapharm Ltd.: Suggested Formulations

Blusher

	<u>Wt%</u>
Syncrowax ERL-C	12.10
Syncrowax HR-C	1.90
Ceraphyl 368	38.40
Myritol 318	3.00
Emerest 2452	0.50
Methyl Paraben	0.20
Propyl Paraben	0.10
Supra Talc	18.55
Biron ESQ	15.00
Mica M-RP	8.25
Color grind - 50% 19-012 (D&C Red #6 Ba Lake) in Myritol 318	2.00

Manufacturing Procedure:

The color grind was prepared in advance on a three roller mill. Combine the waxes, grind and oils. Heat to 80-85C until homogeneous. Add the talc, mica and BiOCl. Agitate with a high speed mixer until no agglomerates remain. Stir in the pearl pigment with moderate agitation. Pour at 70C.

Formulation AN2-33-2

Starlight Body Freshener

<u>Phase #:</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	Deionized water	31.55
1	Glycerine	5.00
1	SD 40 Alcohol	20.00
1	Timiron Starlight Color	0.10
2	1% Carbopol 941 solution	40.00
3	Triethanolamine 99%	0.60
3	Deionized water	2.00
4	Solulan 98	0.50
4	Fragrance	0.25
5	Certified dye(s)	qs

Procedure:

Combine phase #1 with propeller agitation. When homogeneous, add the remaining phases in order.

Formulation EM2-27

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

**Body Emulsion, Type O/W, with MPC - Milk Peptide Complex
and Calendula Oil CLR**

<u>Ingredients:</u>	<u>Weight%</u>
a) Eumulgin VL 75	4.50
Lanette O	2.00
Monomuls 60-35 C	1.00
Cetiol LC	4.00
Cetiol B	5.00
Cetiol PGL	1.00
Calendula Oil CLR	3.00
Phenonip	0.30
b) Water, distilled	65.85
Phenonip	0.30
Carbopol 980	0.30
Glycerin	2.00
c) KOH, 20% solution	0.75
d) Water, distilled	9.38
Na3-Citrate x 2H2O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C;
- b) Heat to approx. 70C and stir into a).
Continue stirring until cooled to approx. 50C;
- c) Stir in. Continue stirring until cooled to approx. 30C;
- d) Stir in.
Perfume, homogenize

Ceramide Complex CLR (P)

Ceramide Complex CLR (P) contains 2% lipids in lamellar, liquid crystalline form. The plant derived lipid mixture consists of at least 10% sphingolipids (ceramides, glycoceramides = cerebrosides).

Eye Gel with Ceramide Complex CLR (P)

<u>Ingredients:</u>	<u>Weight%</u>
a) Hispagel 200	20.00
Keltrol, 1% aqueous solution	30.00
Water, distilled	35.70
Phenonip	0.30
Cetiol J 600	4.00
b) Ceramide Complex CLR (P)	10.00

Manufacture:

- Mix a) at room temperature in the order given;
Add b) to a) with slow stirring. Perfume.

**SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulations**

Clear Facial Cleansing Gel

A clear, mild foaming facial cleanser suitable for a tube or pump packaging. The Jordapon ACI-30 provides excellent foaming, gentle cleansing, and a soft, smooth afterfeel on the skin.

<u>Part:</u>	<u>Ingredient(Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	51.40
	Hydroxypropyl Methylcellulose (Methocel 40-100)	0.20
	Triethanolamine	0.05
	Na4EDTA	0.10
	Citric Acid, 50%	0.05
	Imidazolidinyl Urea (Germall 115)	0.15
B	Deionized Water	20.00
	TEA Lauryl Sulfate (Stepanol WAT)	3.50
	Methyl Paraben	0.15
	PEG-150 Distearate (Mapeg 6000DS)	0.50
C	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	16.80
	Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	4.00
	Soyamide DEA (Mazamide SS-10)	1.50
	Cocamide DEA (Mazamide JT-128)	1.50
D	Fragrance	0.10
	Citric Acid, 50%	Q.S.

pH: 6.3-6.8

Viscosity: 18,900 cps (Brookfield #3 @ 3 rpm)

Appearance: Clear, viscous yellow liquid

Procedure:

Disperse the hydroxypropyl methylcellulose in the part A water, stirring for about ten minutes. Add the Na4EDTA and the triethanolamine; continue mixing for about 20 minutes to ensure complete hydration. Add the remaining part A ingredients and continue mixing at room temperature. In a separate vessel, premix the part B ingredients, heating to 65C to dissolve the Mapeg 6000DS. Add part B to part A with good agitation. Add the part C ingredients in order, mixing until clear and uniform. Add the fragrance and adjust the pH.

SOURCE: PPG industries, Inc.: Formulation K-103

Conditioning Skin Mousse

<u>Formula:</u>	<u>% by Weight</u>
A:	
Celquat L-200	0.50
Distilled Water	89.10
Propylene Glycol	2.00
Triethanolamine	0.50
Preservative	q.s.
B:	
Carnation Mineral Oil (Witco)	2.00
Acetulan	0.50
Amerchol L-101	1.50
Emerest 2407	0.75
Cetyl Alcohol	0.25
Stearic Acid XXX	1.00
Crodanol IPM	2.00
C:	
Fragrance	q.s.

Procedure:

Dissolve Celquat L-200 in water, add remaining ingredients of A while mixing. Heat to 75C. Prepare B and heat to 75C. When each is uniform, add B to A. Cool. Add C when 35C. Fill.

Silky Blush

<u>Formula:</u>	<u>% by Weight</u>
Pigment	30.00
SF1214 Silicone Fluid	27.00
Orgasol 2002	25.00
Crodamol PMP	7.00
White Fonoline Petrolatum (Witco)	5.60
Crosilk Powder (Croda)	5.00
Magnesium Stearate-D (Witco)	0.40

Procedure:

Blend pigment powders and add SF1214. Use high shear to wet powders evenly. Add Crodamol PMP and continue high shear. Add White Fonoline Petrolatum and press into suitable mold. This is a silky pressed blush that can be smoothed on with a brush or by hand.

SOURCE: Witco Corp.: Suggested Formulations

Cooling Facial Balm**Ingredients:****Weight%****Phase A:**

Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	2.0
Caprylic/Capric Triglycerides (Tegosoft CT)	2.0
Octyl Palmitate (Tegosoft OP)	2.5
Cetearyl Isononanoate (Tegosoft CI)	1.0

Phase B:

Propylene Glycol	1.8
Water	72.6

Phase C:

Octyl Stearate (Tegosoft OS)	3.5
Carbomer ETD 2050	0.2
Ethanol	10.0
Cyclomethicone	4.0

Phase D:

Sodium Hydroxide (10% solution)	0.4
---------------------------------	-----

Phase E:

Fragrance (suitable for facial product)	Q.S.
Preservatives	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C.
2. Heat the ingredients of Phase B to 80C.
3. Add A to B or B to A without stirring.
4. Stir.
5. Disperse Carbomer into the oil/ester add to A/B. Homogenize.
6. Cool to 35-40C with stirring.
7. Add Ethanol and Cyclomethicone.
8. Add Phase D/E. Stir.
9. Mix until viscosity is correct.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Cream Eye Shadow

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Stearic Acid	3.00
Glyceryl Stearate	2.00
Cetearyl Alcohol and Ceteareth-20 (Promulgen D)	1.00
Candelilla Wax	1.00
Myristyl Myristate	1.00
Dimethicone (DC 200 Fluid, 350 cstc)	0.50
Propylparaben	0.10
B: Deionized Water	34.30
Ultramarines (C43-1810 Cosmetic Blue)	6.00
Titanium Dioxide (C47-5175 Cosmetic White)	1.50
C: Mica (and) Titanium Dioxide (Timica Pearl White)	5.00
D: Deionized Water	30.00
PVP (PVP K-60)	4.00
E: Propylene Glycol	5.00
Hydroxy Propyl Methyl Cellulose (Methocel 40-202)	0.20
Veegum, Magnesium Aluminum Silicate	0.50
F: Deionized Water	2.00
Triethanolamine, 99%	1.20
Phenoxyethanol (Dowanol EPh)	0.50
EDTA (Versene 100)	0.10
Simethicone (Antifoam AF Emulsion)	0.05
G: Deionized Water	1.00
Quaternium-15 (Dowicil 200)	0.05

Procedure:

Weigh the Part B and Part D water into a beaker. Add Veegum and mix for 20 min. using a homogenizer at 5000 rpm. Disperse the Methocel in Propylene Glycol, add to the batch and mix for 10 min. at 5000 rpm. Weigh and mix together Part F, add them to the batch and mix for 5 min. Add the remaining Part B and mix for 5 min. Add the PVP and mix 2 min. Heat the batch to 80C, mix and heat Part A to 80C. Add Part A to the batch and mix for 10 min. at 5000 rpm. Transfer the batch to a propeller mixer and begin cooling. At 60C add Part C and continue cooling and mixing slowly. At 45C mix Part G ingredients and add them to the batch. Continue mixing while cooling to room temperature.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formula from Dow Chemical Co.

Creamy Lipstick (Summer Mauve)

<u>Formula:</u>	<u>% by Weight</u>
A:	
Ozokerite	7.4
Polyethylene Wax	6.2
White Protopet 1S Petrolatum (Witco)	10.3
Maleated Soybean Oil	2.0
Diisopropyl Adipate	3.1
C12-15 Alkyl Lactate	7.2
Tridecyl Neopentanoate	7.2
Myristyl Lactate	10.0
Isocetyl Stearoyl Stearate	11.0
Hydrogenated Polybutene	6.2
Isopropylparaben (and) Isobutylparaben (and) Butylparaben	0.4
B:	
D&C Red #7 Calcium Lake	1.2
Titanium Dioxide	6.8
Iron Oxide (Cosmetic Red)	0.5
Iron Oxide (Cosmetic Yellow)	0.5
C:	
Mica	5.0
Bismuth Oxychloride	5.0
Mica (and) Bismuth Oxychloride (and) Carmine	10.0

Procedure:

Heat A to 95C until clear. Cool to 85C. Add B. Mix 30 minutes.
Cool to 80C. Add C. Mix 30 minutes and fill.

Petrolatum Stick/Lip Balm

<u>Formula:</u>	<u>% by Weight</u>
White Protopet 1S Petrolatum (Witco)	85.0
Syncrowax HGLC	12.0
Syncrowax ERLC	3.0

Procedure:

Combine the White Protopet 1S Petrolatum and the waxes. Mix while heating to 80C. Cool to 65-70C and pour. Chill the molds to 40C prior to pouring.

SOURCE: Witco Corp.: Suggested Formulations

Enriched Emollient Liquid Makeup

The combination of Veegum and Cellulose Gum in this formula provides synergistic rheological effects including thickening and stabilization of the emulsion and suspension of the pigments. The unusually high concentration of several emollients provides an enriched liquid makeup that spreads smoothly and easily and covers well without tacky afterfeel.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.70
Cellulose Gum (CMC-7MF)	0.25
Deionized Water	42.28
Triethanolamine, 99%	0.75
Glycereth-26 (Liponic EG-1)	10.50
Methylparaben	0.30
B: Titanium Dioxide	10.00
Talc	3.15
Iron Oxides	1.97
C: Isopropyl Isostearate	10.00
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	6.50
Isopropyl Palmitate	4.00
Isopropyl Myristate	2.50
Hydrogenated Soy Glyceride (Myverol 18-06)	2.10
Stearic Acid	1.60
Dioctyl Adipate (and) Octyl Stearate (and) Octyl Palmitate (Wickenol 161 (1.1% by wt) & Wickenol 163 (1.0% by wt)	2.10
Vanseal CS, Cocoyl Sarcosine	1.00
Lithium Stearate	0.10
Propylparaben	0.10
Butylparaben	0.10

Procedure:

Heat the water to 70 to 75C. Add the Veegum and mix at maximum available shear until smooth. Slowly mix in remaining Part A ingredients. Mix Part B ingredients thoroughly into A until uniform. Maintain temperature at 70 to 75C. Heat Part C to 70 to 75C and add to Parts A+B. Mix while cooling.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 433

Exfoliant Scrub

<u>Material:</u>	<u>%w/w</u>
Water, Pure	68.500
Glycerine BP	5.000
Light Mineral Oil	5.000
Polyethylene Spheres	5.000
AEC Isocetyl Stearate	5.000
GMS s/e, Acid Stable ESO	3.000
Volpo CS20	3.000
AEC Cetyl Palmitate	2.000
AEC Decyl Oleate	1.000
Carbopol 940	0.800
Triethanolamine 99%	0.500
Phenonip	0.500
Superhartolan	0.500
Fragrance	0.200

Foermula Ref.: 1051*0

Exfoliating Foot Scrub

<u>Material:</u>	<u>%w/w</u>
Water; Pure	44.810
Sodium Laureth Sulfate (SLES)	40.000
AEC Corn Cob Granules	5.000
Veegum Regular	4.000
Cocamidopropyl Betaine	3.000
Cocamide CDE	2.000
E.O. Peppermint	0.200
Bronidox L/15	0.200
EDTA, Disodium Salt	0.200
C.S. FD&C Yellow No. 5; 1% Soln	0.170
E.O. Tea Tree	0.150
C.S. FD&C Blue No. 1; 1% Soln	0.135
Myacide SP	0.100
Lactic Acid, Natural	0.035

Formula Ref.: 1202*0

SOURCE: A&E Connock Ltd.: Suggested Formulations

Exfoliant Scrub

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Light Mineral Oil	5.000g
2 AEC Isocetyl Stearate	5.000g
3 GMS s/e, Acid Stable ES0	3.000g
4 Volpo CS20	3.000g
5 AEC Decyl Oleate	1.000g
6 AEC Cetyl Palmitate	2.000g
7 Superhartolan	0.500g
Aqueous Phase:	
8 Water, Pure	68.500g
9 Glycerine BP	5.000g
10 Carbopol 940	0.800g
11 Triethanolamine 99%	0.500g
12 Phenonip	0.500g
Cooling Cycle:	
13 Polyethylene Spheres	5.000g
14 Fragrance	0.200g

Mixing Instructions:

The Oil Phase is added to the Aqueous at 70C with mixing. Mixing is continued while cooling, and the gently exfoliating Polyethylene Spheres added below 40C. Do not homogenise or use high shear mixing after the addition of the Polyethylene Spheres.

The high ester content base will soften skin and assist the gentle exfoliating action of the Polyethylene Spheres. The spheres are available in a variety of colours making it possible to formulate very interesting products.

SOURCE: A & E Connock Ltd.: Project JW 2461/Formula Ref.: 1051*0

Foaming Facial Cleanser

A rich pearlescent lotion with rapid flash foaming and gentle cleansing, which leaves the skin soft and smooth.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt. %</u>
A	Deionized Water	38.7
	Propylene Glycol	10.0
	Sodium Isethionate, 56% (Witconate NIS)	9.0
	TEA Lauryl Sulfate (Stepanol WAT)	2.5
	Cocamidopropyl Amine Oxide (Mazox CAPA)	16.0
B	Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-75)	19.3
	Sodium Tallowate (and) Sodium Cocoate (Bradpride Chip)	2.5
	Stearic Acid (Hystrene 5016)	2.0

pH: 6.3-6.8 Viscosity: 2.4×10^6 cps Firm white paste

Procedure:

Blend the part A ingredients in the main vessel, heating to 80-85C. Add the part B ingredients in order, maintaining temperature. Mix at temperature until all solids are dissolved, about 30 minutes. Stir-cool to 40-45C and adjust pH if necessary.

SOURCE: PPG Industries, Inc.: Formula K-104

Exfoliating Foot Scrub

<u>Stage Material:</u>	<u>Quantity</u>
Pre-Mix 1	
1 E.O. Tea Tree	0.150g
2 E.O. Peppermint	0.200g
3 Cocamidopropyl Betaine	3.000g
Stage A:	
4 Water; Pure	44.810g
5 Myacide SP	0.100g
6 EDTA, Disodium Salt	0.200g
7 Bronidox L/15	0.200g
8 Veegum Regular	0.400g
Stage B:	
9 Sodium Laureth Sulphate (SLES)	40.000g
Stage C:	
10 AEC Corn Cob Granules	5.000g
11 Cocamide CDE	2.000g
12 C.S. FD&C Yellow No. 5; 1% Soln	0.170g
13 C.S. FD&C Blue No. 1; 1% Soln	0.135g
14 Lactic Acid; Natural	0.035g

Mixing Instructions:

This Foot Scrub has a cleansing and gentle exfoliating action. The Tea Tree oil is a natural fungicide, the peppermint oil has a natural cooling action and the Corn Cob Granules exfoliate rough and dead skin.

1. Meter out the water and start heating. Add Myacide/EDTA/Bronidox.
2. Continue heating & disperse the Veegum; heat to 60/65C to obtain a smooth paste, switch off heat.
3. While mixing very carefully to avoid foaming slowly & carefully add Sodium Laureth Sulfate. This brings the temperature down to approx. 45C. Continue mixing until a smooth paste (about 30 mins.).
4. Separately mix together Tea Tree/Peppermint Oil and Cocamidopropyl Betaine and add to main mix.
5. While still liquid stir in the AEC Corn Cob Granules followed by Cocamide DEA which will thicken the product.
6. Match colour, adjust pH to 7.5-8.5, stir until product thickens to avoid Corn Cob Granules floating to the surface.

SOURCE: A & E Connock Ltd.; Project JW2566/Formula Ref. 1202*0

Extra Light W/O Emulsion

<u>Ingredients:</u>	<u>Weight%</u>
Oil Phase:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Dimethicone (350 cs)	1.0
Beeswax	0.2
Hydrogenated Castor Oil	0.2
Cyclomethicone	9.0
Octyl Stearate (Tegosoft OS)	4.0
Isopropyl Palmitate (Tegosoft P)	3.0
Isopropyl Myristate (Tegosoft M)	4.0
Water Phase:	
Water	72.8
NaCl	0.8
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, maintain temperature of 50-60C.
2. Mix the water and sodium chloride. Heat to 50-60C.
3. With lightnin' mixing, stream the water phase into the oil phase.
4. With sweep agitation, cool to 35C.
5. Add color, fragrance and preservatives.
6. Homogenize with a roto-stator homogenizer.

Pearlescent Eye Shadow

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Talc	44.40
Silica	4.00
Kaolin	14.00
Mica	8.00
Iron Oxides	18.00
Ultramarine Blue	4.00
Methylparaben	0.25
Propylparaben	0.15
Phase B:	
Caprylic/Capric Triglycerides (Tegosoft CT)	4.20
Behenoxy Dimethicone (Abil Wax 2440)	1.00
Phenyl Trimethicone (Abil AV 20)	0.25
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	1.75
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A in a blender. Mix until uniform.
2. Combine the ingredients of Phase B. Warm if necessary to disperse the Abil Wax 2440. Mix. Add to A. Reblend.
3. Press into godets.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Eye Mascara**Formulating Design and Advantages:**

This mascara provides a quick drying initial effect. The product is silky to the lashes and smudge proof.

	Wt%
Oil Phase:	
Siliconyl Beeswax (Koster Keunen)	7.50
PEG Carnauba (Koster Keunen)	7.50
Glycerol Monostearate (Witco)	2.75
Orange Wax (Koster Keunen)	2.00
Stearic Acid (Koster Keunen)	1.00
Paraffin 150/155 (Koster Keunen)	1.50
Microcrystalline W445 (Witco)	1.50
Propyl Paraben (Sutton)	0.30
Water Phase:	
Water (Deionized)	58.45
Sodium Borate (Borax)	1.20
Propylene Glycol (BASF)	1.00
Carbopol 2% Solution (B.F. Goodrich)	1.00
Alcohol Phase:	
Alcohol SDA 30 (Quantum)	10.00
Purified Black Oxide (Clarke)	4.00

Procedure:

Heat the oil phase and water phase to 75C. Add the oil phase to the water phase. Cool to 40C and add the premixed alcohol phase. Cool.

Adaptation of Formula and Its Influence on the Product:

A variety of pigments can be substituted to suit the product's needs. Viscosity can be altered by reducing solids and increasing water phase.

Powder Formula**Formulating Design and Advantages:**

Binder systems utilizing the silicone oil/Cera Albalate 103 gel produces a dry non-oily skin feel. These type of products also have high structural integrity and can withsatnd five drops from one to two feet.

	Wt%
Binder:	
Silicone Oil 345 (Dow)	60.0
Hexanediol Behenyl Beeswax (Koster Keunen)	40.0
Pressed Powder:	
Cosmetic Tan C33-130 (Sun Chemical)	13.0
Talc (Whittaker C&D)	47.0
Binder (Koster Keunen)	40.0

Procedure:

Homogenize and press in container at 1000 psi for 15-20 seconds.

Adaptation of Formula and Its Influence on the Product:

Other oils and/or waxes can be substituted into the binder system. In the final product, pigments and concentration of binder can easily be altered to produce varying degrees of creaminess and firmness of the powder.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Eye Shadow

<u>Phase#:</u>		<u>Wt%</u>
1	Talc 141	q.s.
1	Lithium stearate	2.50
1	Kaolin 2457	5.00
1	Microcel E	0.50
1	Methyl Paraben	0.20
1	Propyl Paraben	0.10
1	Biron ESQ (BiOC1)	see below
1	Conventional Pigments	see below
2	Pearlescent Pigment	see below
3	Amerchol L-101	11.00
3	Super Hartolan	1.00
3	White Petrolatum	1.00

Procedure:

Combine phase #1. Pulverize with a hammer mill, passing twice through a 0.027" herring bone screen. Add phase #2 with gentle agitation. Combine phase #3. Heat to 70C. Spray onto batch while agitating bulk. Pass entire batch through a jump gap.

Combinations:P3-83-1:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	5.00
1 Red Iron Oxide (7054)	2.00
1 Yellow Iron Oxide (7055)	3.00
2 Colorona Chameleon	60.00

P3-83-3:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.75
1 Red Iron Oxide (7054)	3.00
1 Yellow Iron Oxide (7055)	6.25
2 Colorona Copper	60.00

P3-83-5:

1 Biron ESQ	0.20
1 Birona Carmine	14.00
2 Colorona Bordeaux	60.00

P3-83-7:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.50
1 Manganese Violet (7101)	2.00
2 Colorona Magenta	55.00

P3-83-9:

1 Biron ESQ	2.60
1 Black Iron Oxide (7133)	0.50
1 Birona Iron Blue	2.00
2 Colorona Dark Blue	55.00

P3-83-2:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	1.00
1 Red Iron Oxide (7054)	5.40
1 Yellow Iron Oxide (7055)	3.60
2 Colorona Sienna	60.00

P3-83-4:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.50
1 Yellow Iron Oxide (7055)	9.50
2 Colorona Bronze	60.00

P3-83-6:

1 Biron ESQ	0.20
1 Birona Iron Blue	14.00
2 Colorona Bordeaux	60.00

P3-83-8:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.50
1 Chromium Hydrate	2.00
2 Dichrona BG	55.00

SOURCE: Rona/EM Industries, Inc.: Formulation P3-83

**Facial Cleanser with Pemulen TR-2 Polymer Emulsifier
and Carbopol Ultrez 10 Polymer**

This cleansing formulation is light, non-greasy and water-rinsable. It provides thorough cleansing without drying the skin.

Ingredients: **% by Weight**

Part A:

Deionized Water	89.55
Miranol Ultra	1.00
Dowicil 200	0.10
Methylparaben	0.10
Propylparaben	0.05

Part B:

Finsolv SB	4.00
Bernel Ester DOM	2.00
Caprylic/Capric Triglyceride	1.00
Wickenol 171	1.00
Pemulen TR-2	0.20
Carbopol Ultrez 10	0.60

Part C:

AMP-95	0.40
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Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix to dissolve Dowicil 200.
2. Combine Part B ingredients in a separate vessel. Mix to disperse any soft lumps of Pemulen and Carbopol polymer.
3. With moderate agitation, add the Part B slurry to Part A. Mix for 10-20 minutes to allow polymers to swell.
4. Add Part C and mix vigorously to produce a smooth, white cream.

Properties:

pH: 5.6-6.0

Viscosity* (cPs) at 25C: 28,000-35,000

*Brookfield RVT @ 20 rpm, #6 spindle

SOURCE: Angus Chemical Co.: Product Formulary: Formulation
PF-0368 suggested by B.F.Goodrich (U0006)

Facial Scrub

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Carbomer 940 (2%)	15.00
A	Deionized Water	57.75
A	Propylene Glycol	2.50
A	Aloe Vera Gel	0.25
B	Cyclomethicone	5.00
B	Oils of Aloha Macadamia Nut Oil	2.50
B	Stearic Acid XXX	3.50
B	Promulgen D	1.00
B	Isopropyl Myristate	10.00
C	Triethanolamine 99%	1.00
D	Polyethylene AC-9A	1.50
E	Preservative	QS

Manufacturing Procedure:

Phase A: Disperse Carbopol into water while heating to 75C.
Add Propylene Glycol and Aloe Vera Gel.

Phase B: Heat oil phase to 75C and add to water phase.

Phase C: Add Triethanolamine to oil/water mixture and cool to 40C.

Phase D/E: Add Polyethylene AC-9A. Add preservative.

Carbomer 940 is the suspending agent. This scrub is designed for people with oily skin and needs to have a drying effect. Uses two very dry emollients-cyclomethicone and isopropyl myristate. They leave a dry feeling skin. The Oils of Aloha Macadamia Nut Oil leaves the skin with a fresh, moist afterfeel. Kukui Nut Oil would also work very well in this formula.

SOURCE: Oils of Aloha: Suggested Formulation

Facial Cleansing Gel

<u>A:</u>	<u>Wt%</u>
Deionized Water	60.90
Sodium PCA	0.10
Carbomer 940 (2% Aq.)	25.00
TEA-Lauryl Sulfate	2.00
Cocamide DEA (Phoenamid CD)	2.50
Silicone Quaternium-6 (Pecosil SPB-1240)	2.00
PEG-3 Distearate (Phoenate 3DSA)	1.50
Propylene Glycol	5.00
<u>B:</u>	
Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	1.00
Color	q.s.
Fragrance	q.s.
<u>Procedure:</u>	

Combine Phase A items, agitate and heat to 70C. When Phase A is uniform, begin cooling under slow sweep agitation to 45C. Add Phase B with continued slow sweep agitation. Slowly sweep AB until uniform.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Gel with MPC-Liposomes**MPC-Milk Peptide Complex:**

MPC contains natural polypeptides from milk, in activated form. A protective environment exclusively comprised of milk components such as lactalbumin, lactoglobulin, lactoferrin, lactose and lactate provides for product stability and maintenance of bioactivity. Bioactivity is standardized in every batch of MPC to a representative concentration range (EC50). In vitro bioassays in cell cultures and in vivo tests on epithelial tissue and on human skin give proof of the bioactivity and cosmetic benefits of MPC.

	<u>Wt%</u>
a) Hispagel 200	20.00
Water, distilled	20.70
Keltrol, 1% solution	30.00
Cetiol J 600	4.00
Phenonip	0.30
b) MPC-Liposomes (2% MPC)	25.00

Manufacture:

Mix a) at room temperature;
Slowly add b) to a) and combine.
Perfume.

SOURCE: Chemisches Laboratium Dr. Kurt Richter GmbH: Formula

Body Moisturiser with Wild Borage OilMaterial:

	<u>%w/w</u>
Water; Pure	76.560
Propylene Glycol USP	5.000
AEC Decyl Oleate	4.000
Cocoa Butter, Refined	3.000
Tego Care 450	3.000
AEC Diisostearyl Trimethylolpropane Siloxy Silicate	2.000
GMS NSE	2.000
Sodium PCA	1.500
Cetearyl Alcohol	1.000
Wild Borage Oil	1.000
Nipaguard BPX	0.500
Fragrance	0.300
Xanthan Gum	0.125
Lactic Acid; Natural	0.015

SOURCE: A & E Connock Ltd.: Formula Ref.: 1052*0

Hand and Body MoisturizerFormula:% by Weight

A:	
Benol Mineral Oil (Witco)	7.00
Estol EHP 1543	2.00
Pristerine 4904	3.50
Estol 1462	3.00
Myrj 52	1.00
Abil B8852	1.00
Lanolin Oil	0.20
B:	
Deionized Water	79.60
Triethanolamine	1.30
Pricerine 9083	2.00
Dermacryl-79	1.00
C:	
Carbopol 934	0.20
D:	
Germaben II-E	1.00
E:	
Fragrance Q4696 (Quest)	0.20

Procedure:

Combine A ingredients and heat to 80C. In separate vessel, mix water, Pricerine and TEA. While maintaining good agitation, slowly add Dermacryl. Heat to 50C and add C slowly. When each portion is uniform, add A to B/C and mix 15 mins.; cool to 40C. Add D and E and cool to room temp.

Liquid MakeupFormula:% by Weight

A:	
Gelwhite GP	1.2
Keltrol Xanthan Gum	0.2
Propylene Glycol	3.0
Triethanolamine	1.0
Water	58.4
B:	
Iron Oxides	1.2
Talc	3.0
Titanium Dioxide	6.0
C:	
Carnation Mineral Oil (Witco)	10.0
Isopropyl Palmitate	5.0
Nimlesterol D Mineral Oil	5.0
Oleic Acid	6.0
Preservatives	q.s.

Procedure:

Slowly add Gelwhite CP to the water while agitating at maximum shear. Add Keltrol slowly and mix at moderate speed until smooth. Add propylene glycol and TEA while mixing with medium shear. Blend B and grind in mortar with a portion of A until well mixed. Combine with remainder of A and heat to 60C. Combine C and heat to 65C. Add C to A/B; continue slow mixing until temp. drops to 30C. Add preservatives.

SOURCE: Witco Corp.: Suggested Formulations

Lipcare
Emollient Lipstick

	<u>%w/w</u>
Phase A:	
Anhydrous lanolin P95	14.00
Argonol 50	5.00
Mineral oil	40.00
Beeswax	5.00
Cetyl alcohol	6.00
Ozokerite	2.00
Candelilla wax	8.00
Preservative	qs

Phase B:	
Colour pigments in castor oil:	
Titanium dioxide	5.00
D&C red 6	1.00
Timica pearl white	4.00

Phase C:	
Fragrance or flavour	qs

Heat together A until clear, add B and mix well. Adjust to 60C, then add C. Pour into moulds.

*A glossy lipstick with good spreadability.

Medicated Lip Balm

	<u>%w/w</u>
Beeswax USP	10.00
Paraffin wax 130/135	10.00
Finsolv TN	54.00
AC Polyethylene 617	6.00
Camphor	20.00

Combine the first four ingredients and heat to 90-95C while mixing. Continue mixing and cool to 80-85C. Add the camphor and mix until completely dissolved. Cool once more, to 40-45C. Pour into moulds.

*A solid white stick that rubs easily onto the lips. It imparts a non-greasy, emollient feel to chapped lips.

SOURCE: Allied-Signal, Inc.: Suggested Formulations

Lipcare
Lip Pomade

Phase A:	%w/w
Anhydrous Lanolin P95	10.00
Lanesta S	18.00
Petroleum jelly	12.00
Mineral oil	38.00
Ozokerite	5.00
Isopropyl myristate	10.00
Paraffin wax	7.00

Phase B:	
Fragrance or flavour	qs

Heat phase A until clear. Cool to 45C then add B. Fill warm.

*This gives a 'butter-like' product, which liquefies on contact with the skin, making application easy and giving emollient protection.

Lip Gloss

Phase A:	%w/w
Argonol 50	8.10
Argonol ACE 5	3.00
Carnauba wax	3.60
Ozokerite	7.00
Candelilla wax	6.00
Castor oil	to 100.00

Phase B:	
Colour dispersed in castor oil	qs

Phase C:	
Fragrance or flavour	qs

Heat together A until clear, then add B, stirring well until fully dispersed. Cool to 50C and add C. Fill warm.

*A soft, smooth gloss that protects, smoothes and gives a light colour.

SOURCE: Allied-Signal Inc.; Suggested Formulations

Lip Salve with Glycyrrhetic Acid

	<u>%w/w</u>
PEG-45/dodecyl glycol copolymer	25.00
Beeswax	5.00
Jobba oil	2.50
Hydrogenated lanolin	5.00
Cocoa butter	10.00
Castor oil	25.00
Antioxidants	0.05
Glycamil	qs
Glycyrrhetic acid	0.50
Zinc oxide	10.00
Titanium dioxide	1.00
Flavour	qs

Melt the first seven ingredients, then add Glycamil and the glycyrrhetic acid. Disperse the ZnO and TiO₂ in the melted ingredients. Finally, add the flavour, mixing until room temperature.

Lip Salve Sunscreen

	<u>%w/w</u>
Candelilla wax	21.00
White beeswax	15.00
Eutanol G	10.65
Lipex 205 canola oil	10.25
Cetyl alcohol	10.00
Lipex 102 shea butter	8.50
Citmol 316 TM	6.50
Lipex 106 Illipe' butter	6.00
Parsol MCX	5.00
Lipex 104	4.00
Lipex 203 mango kernal oil	2.50
Benzophenone-3	0.50
Propyl paraben	0.10

Heat together all the ingredients until clear. Pour into containers at 60C and cool.

Lip Fix

	<u>%w/w</u>
Ethanol	70.00
Deionised water	10.00
Gantrez ES-425	20.00

Simple mix.

SOURCE: Allied-Signal, Inc.: Suggested Formulations

Lipstick

<u>Phase #:</u>		<u>Wt%</u>
1	Castor Oil	7.00
1	C19-011 D&C Red#7 Ca Lake	1.50
1	C19-022 D&C Red#6 Ba Lake	1.50
2	Castor Oil	33.70
2	Candelilla	5.70
2	Carnauba	1.80
2	Ozokerite #77W	1.50
2	Microcrystalline Wax #214	3.00
2	Caprylic/Capric Triglyceride	16.00
2	Mineral Oil/90cs	2.00
2	Octyl Dodecyl Stearoyl Stearate	5.00
2	Octyl Decanol	5.00
2	Hydroxylated Lanolin	1.00
2	Methyl Paraben	0.20
2	Propyl Paraben	0.10
3	Pearlescent Pigment	15.00

Procedure:

Combine phase #1. Stir with a high intensity mixer until homogeneous. Pass across a three roll mill until agglomerates are reduced to less than 25 um. Combine phase #2. Heat to 80-85C with Lightnin' mixer agitation, stirring until clear. Add phase #1. Add pearlescent pigment (phase #3), maintaining agitation until dispersed. Pour into ambient temperature molds at 72-74C.

Rona Pearl Pigment Combinations:

AN2-55-1: Timiron Super Red
 AN2-55-2: Timiron Super Blue
 AN2-55-3: Timiron Super Gold
 AN2-55-4: Timiron MP-1001
 AN2-55-5: Timiron MP-1500
 AN2-55-6: Colorona Red Gold
 AN2-55-7: Colorona Red Brown

Wax Melting Points:

Candelilla: 68.5-72.5C
 Carnauba: 83C minimum
 Ozokerite #77W: 73.3-79.4C
 Microcrystalline Wax #214: 71.1-76.7C

SOURCE: Rona/EM Industries, Inc.: Formulation AN2-55

Lip Stick

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 840 (Propylene Glycol/Dicaprylate/Dicaprate)	10.00
Softisan 649*	4.00
Beeswax	9.00
Mineral Oil	2.00
Castor Oil	60.00
Carnaubawax	5.00
Timiron Silk Red	9.00
Sicoret Rot F 12150	1.00
Antioxidantien	q.s.
B. Fragrance	q.s.

*Bis-Diglyceryl Polyacyladipate-2

Preparation:

A is melted and stirred until homogeneous.

At 50C B is added and the mass is poured into molds at ca. 40C

Formulation HUK LST

Lip Care Stick with Sunscreen

<u>Ingredients:</u>	<u>Weight%</u>
A. Softisan 100	40.00
Softisan 649*	14.00
Dynacerin 660 (Oleyl Erucate)	12.00
Beeswax	15.00
Carnaubawax	2.00
Neo Heliopan E 1000	2.00
Castor Oil	15.00
B. Fragrance	q.s.

* Bis-Diglyceryl Polyacyladipate-2

Preparation:

A is melted and stirred until homogeneous.

At 50C B is added and the mass is poured into molds at ca. 40C.

Formulation HUK LCST

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Lipstick, Glossy

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol Gel B (Caprylic/Capric Triglyceride (and) Stearalkonium Hectorite (and) Propylene Carbonate)	14.00
Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	8.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	6.00
Softisan 645 (Bis-Diglyceryl Polyacryladipate-1)	22.00
Polyisobutene	19.00
Lanolin Wax	10.00
Na-Stearate	1.00
Candelilla Wax	8.00
Beeswax	7.00
B) Timiron Starlight Red (Mica (and) Titanium Dioxide)	5.00

Preparation:

(A) is melted and stirred until homogeneous up to 75 degrees C. At about 50 degrees C. (B) is added, and then the mixture is poured into molds.

Formulation 2.20

Lip Stick

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	10.00
Softisan 649 (Bis-Diglyceryl Polyacryladipate-2)	4.00
Beeswax	9.00
Mineral Oil	2.00
Castor Oil	60.00
Carnauba Wax	5.00
Timiron Silk Red (Mica (and) Titanium Dioxide)	10.00
Antioxidants	q.s.
B) Fragrance Tendresse 75418 B	q.s.

Preparation:

(A) is melted and stirred until homogeneous. At 50 degrees C, (B) is added and the mass is poured into molds.

Formulation 2.2P

SOURCE: Huls America Inc.: Suggested Formulations

Lipstick "Soft and Moist" (Modified)

<u>Materials:</u>	<u>% by Weight</u>
1. Ozokerite White 170	4.0
2. Castorwax	2.0
3. Candelilla Wax, Light Refined	8.0
4. Lexol PG 855	31.3
5. Castor Oil	24.0
6. Propylparaben	0.1
7. Tenox 4	0.1
8. Bentone Gel CAO Rheological Additive	10.0
9. Pigment Concentrate*	20.0
10. Perfume	0.5

*Pigment Concentrate:

Castor Oil	30.00
Color No. 3106 D&C Red No. 6	70.00

Manufacturing Directions:

1. Weigh items 1 through 7 into a stainless steam jacketed kettle. Heat to 85°C until melted clear.
2. Bring temperature down to 80°C. Add and mix in item 8 using a homomixer at medium speed. Mix for 10 minutes at 80°C.
3. Add and mix item 9 for 5 minutes or until dispersed.
4. Continue mixing at medium speed and lower temperature to 70°C and add item 10. Remove heat and stir slowly until congealed, or pour into trays.
5. When casting, melt and pour molten mass into mold at 75°C, with slow agitation (avoid air entrapment).

Note: For a shiny polished surface on the lipstick, the sticks should be surface flamed.

Pigment Concentrate Preparation:

1. Weigh dry powder into the castor oil using a slow speed Hobart type mixer and mix until uniform.
2. Give this concentrate two passes over a 3 roll mill at room temperature.

SOURCE: Rheox Inc.: Suggested Formulation

Lipstick Base

	<u>Wt%-1</u>	<u>Wt%-2</u>
A-C 617	8	7
Acetylated Lanolin	16	16
2-Ethyl Hexyl Stearate	6	7
Ozokerite	20	20
Mineral Oil (75 SS)	50	50

Procedure:

Weigh out all ingredients. Heat mixture slightly above their cloud points with mild agitation. (Blends 1 & 2 have cloud points of 80 & 79°C respectively). Once blend is clear the mixture can be cooled and packaged.

SOURCE: Allied-Signal Inc.: Suggested Formulations

Lipstick with A-C 400, No. 162

	<u>%w/w</u>
1. TiO ₂ in Castor Oil (40% pigment)	1.8
2. Red 6 in Castor Oil (25% pigment)	14.3
3. Red 7 in Castor Oil (25% pigment)	10.8
4. Castor Oil (extra)	3.3
5. Polybutene H-100	9.3
6. A-C 400A	4.7
7. Eutanol G	23.3
8. Refined Lanolin	9.3
9. Candelilla	13.0
10. Polyglyceryl di-isostearate (Emerest 2452)	10.2

Procedure:

The pigment castor oil blends are predispersed. Weigh all ingredients together, heat and mix to 93C. Cool to 85C and pour the mixture into the molds.

NOTE: This stick was flamed. Without flaming it would not be as glossy. To make it more matte, reduce polybutene to 5%, and increase No. 7 by 2%, No. 8 by 0.5%, No. 9 by 1%, and No. 10 by 1.5%. Preservative and anti-oxidant as minor amounts should not be a problem.

Lip Gloss

	<u>%w/w</u>
1. 2-ethyl hexyl stearate	51.175
2. Castor oil	15
3. A-C 400	20
4. Lanolin alcohol	5
5. Oleyl alcohol	8
6. Perfume	0.75
7. Brown umber shade 1985	0.025
8. Brown red shade 1654	0.05
9. Preservative	q.s.

Procedure:

- Disperse pigment in 0.225% castor oil.
- Mix the remaining 1,2,3,4,5 and heat to 85-90C with stirring until the polyethylene has completely dissolved. Add pigment mixture to it.
- Mix slowly, add perfume at 50-55C and de-aerate. Pour into molds or containers and allow to cool to room temperature.

SOURCE: Allied-Signal Inc.: Suggested Formulations

Liquid Make-Up**Formulating Design and Advantages:**

This make-up covers nicely yet it is very light on the skin and leaves a smooth and silky after-feel. It will also reduce transepidermal water loss.

Oil Phase:	Wt%
Hexanediol Behenyl Beeswax (Koster Keunen)	0.50
Octyl Palmitate (Lexol)	2.00
Silicone Oil 556 (Dow Corning)	4.00
Isopropyl Palmitate (Lexol)	2.00
Isostearic Acid (Unichema)	1.50
Oyster Nut Oil (Koster Keunen)	1.00
Propyl Paraben (Sutton)	0.30

Water Phase:

Deionized Water	59.60
Xanthan Gum (Kelco)	0.40
Cellulose Gum (Aqualon)	0.30
Triethanolamine (Dow Corning)	0.70
Glycerin (Unichema)	2.00
Propylene Glycol (BASF)	2.00
Polysorbate 60 (BASF)	0.60
Methyl Paraben (Sutton)	0.30

Pigment Phase:

Optatint Titanium Dioxide (Colorcon)	13.00
Deodorized Orange Wax (Koster Keunen)	2.00
Siliconyl Beeswax (Koster Keunen)	2.30
PEG Carnauba (Koster Keunen)	2.30
Brown Iron Oxide (Clark Colors)	2.20
Yellow Iron Oxide (Clark Colors)	1.00

Procedure:

Heat pigment phase until melted, stirring to break up any globules. Let cool. Reheat and melt again stirring globules. Add to the preheated oil phase at 75C. Add the oil phase to the 75C heated water phase under vigorous agitation. Cool.

Adaptation of Formula and Its Influence on the Product:

Small amounts of sunscreen may be added to replace the oils. The oil may be reduced to give an even lighter feel. Replacement of Oyster Nut Oil with Polyethylene Glycol Distearate will make this formula an oil free product.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Liquid Makeup

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	48.83
B: Veegum, Magnesium Aluminum Silicate	0.50
Cellulose Gum (CMC 7H3SF)	0.15
C: Propylene Glycol	5.00
Lecithin	1.00
Methylparaben	0.20
D: Titanium Dioxide	9.00
Mica (and) Silicon Dioxide (Cashmir K-11)	2.00
Talc (Micro Ace P-2)	2.00
Iron Oxides	1.40
Silica (Spheron P-1500)	0.50
E: Cetyl Alcohol	1.00
Glyceryl Stearate (Lipo GMS 450)	0.80
Isopropyl Palmitate (Lipo IPP)	4.00
Stearic Acid	0.80
Caprylic/Capric Triglyceride (Liponate GC)	6.00
Isoeicosane (Permethyl 102A)	12.50
Isostearic Acid (Emerol 871)	2.40
F: Triethanolamine, 99%	1.62
Propylparaben	0.10
Imidazolidinyl Urea (Germall 115)	0.20

Procedure:

Dry blend Part B ingredients. Add Part B to Part A while mixing with a homogenizer for 20 minutes at 5000 rpm. Begin heating to 75C. Add the Part C and Part D ingredients in the order shown mixing each for 3 minutes. Check to make sure the pigments are uniformly dispersed. In a separate vessel mix and heat the Part E ingredients to 75C. When both phases are at 75C, add the Part E to Parts A+B+C+D. Mix for 15-20 minutes. Begin cooling with slow speed mixing. At 50C add the Part F ingredients in the order shown. Continue cooling to room temperature while mixing at slow speed.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation from Presperse, Inc.

Luxurious MakeupFormula:% by Weight

A:	
Veegum	1.20
Water	37.90
Magnesium Sulfate	0.40
B:	
Talc	5.50
Kaolin	1.50
Titanium Dioxide	5.00
Iron Oxides	3.00
C:	
Carnation Mineral Oil (Witco)	15.00
Polysynlane (Polyester)	8.00
Ritachol	8.00
Lanapene (Lanaetex)	7.00
70% Sorbitol Solution	5.00
Witcamide 511 (Witco)	1.50
Preservatives	q.s.

Procedure:

Add Veegum to water slowly, agitating continually until smooth. Grind B and add to A, mixing until uniform. Add A and B to C and mix until smooth and uniform.

Cleansing MilkFormula:% by Weight

Lanolin Anhydrous	5.0
Propylene Glycol Monostearate	3.0
Polysynlane (Polyester)	38.0
I.P.M.	4.0
Paraffin Wax	4.0
Beeswax	16.0
Potassium Hydroxide	0.7
Carnation Mineral Oil	3.0
Perfume and Preservatives	q.s.
Water to	100.0

SOURCE: Witco Corp.: Suggested Formulations

Makeup Foundation

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Deionized Water	46.50
B: Veegum Ultra, Magnesium Aluminum Silicate	0.80
Xanthan Gum	0.30
C: Nylon-12 (Orgasol 2002 D Extra Natural Cos)	1.20
Sodium PCA (Ajidew N-50)	1.00
D: Deionized Water	10.00
Propylene Glycol	7.00
Iron Oxides (and) Talc	2.55
Titanium Dioxide	5.60
E: Glyceryl Stearate (Cerasynt GMS)	2.00
Stearic Acid	2.00
DEA-Cetyl Phosphate (Amphisol)	2.00
Methylparaben (and) Butylparaben (and) Ethylparaben	
(and) Propylparaben (Nipastat)	0.25
Isostearyl Neopentanoate	3.00
Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer (Geahlene)	15.00
Phenoxyethanol (Emeressence 1160)	0.70
Tocopherol Acetate	0.10

Dry blend the Part B ingredients and add them to Part A while mixing with a homogenizer at 5000 rpm for 20 minutes. Add the Part C ingredients in order and mix each for 3 minutes. In a separate container homogenize the Part D ingredients until smooth. Add Part D to Parts A+B+C and mix 10 minutes while heating to 80C. Heat the Part E ingredients to 80C and mix until the solids are dissolved. Add Part E to the main batch and mix for 30 minutes. Continue mixing at slow speed while cooling to 35C. *As received basis

Lash-Conditioning Mascara

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Veegum, Magnesium Aluminum Silicate	1.50
B: Deionized Water	30.78
C: PVP (PVP K-30)	0.22
Hydrolyzed Keratin (Kera-Tein 1000 SD)	1.00
Keratin Amino Acids (Kera-Tein AA)	0.50
Propylene Glycol	5.00
D: Petrolatum	3.00
Petroleum Distillates	32.00
Carnauba Wax	5.00
Synthetic Beeswax	5.00
Candelilla Wax	3.00
Paraffin	2.50
Oleamide DEA	5.00
E: Iron Oxide (C33-134 Cosmetic Black)	5.50
F: Preservative	q.s.

Add Part A to Part B and mix with a homogenizer for 20 minutes at 5000 rpm. Add Part C ingredients in the order shown mixing each 3 minutes before adding the next ingredient. Heat Parts A+B+C to 75C. Mix and heat Part D ingredients to 80C. Add Part D to Parts A+B+C and mix 10 minutes. Add Part E and mix 10 minutes. Begin cooling while mixing slowly. At 40C add Part F. Mix & cool.

SOURCE: R.T.Vanderbilt Co., Inc.: Formulas: Penreco & Maybrook

Make-up Remover

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Sodium Borate	0.60
Neobee M-5 Cosmetic	40.00
Mineral Oil	2.00
Beeswax USP	10.00
Lanolin	1.00
Drewhol 10-10-0	2.50
DMDM Hydantoin	0.25

Mixing Procedure:

Prepare water phase by adding together D.I. Water and Sodium Borate. Start mixing. When there are no crystals, start heating to 160-165F. Prepare oil phase by combining Neobee M-5 Cosmetic, Mineral Oil, Beeswax USP, Lanolin, and Drewhol 10-10-0. Heat to 165-170F. Add water phase into oil phase with good agitation. Emulsify for 25-30 minutes at 165-170F. Cool to 110F. Add DMDM Hydantoin. With mixing, cool to room temperature.

AHA Facial Cleanser

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Glycerin	2.5
EDTA	0.2
Bio-Terge AS-40	30.0
Amphosol CG	20.0
Avanel S-150	6.5
Salicylic Acid	1.0

Mixing Procedure:

Add water, Glycerin, EDTA, Bio-Terge AS-40, and Amphosol CG and mix well. Into a separate vessel, premix Avanel S-150 and Salicylic Acid, making sure all crystals are dissolved. Add premix to the batch. Mix well. Check pH (4.0) and adjust viscosity, if necessary.

SOURCE: Stepan Co.: Suggested Formulations

Mascara Remover

A smooth lubricating cleanser for the removal of mascara.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Lipovol MOS-70*	82.45
1	Liponate NPGC-2	15.00
1	Uniphen P-23	0.30
2	Liposorb L-20	1.25
2	Liponic EG-1	1.00

*Patent #4,659,573

Room Temperature Procedure:

1. Add Sequence #1 in order of addition while mixing at medium speed with overhead mixer.
2. Premix Sequence #2 and add to Sequence #1 with overhead mixer at medium speed.

SOURCE: Lipo Chemicals Inc.: Formula No. 900

Pressed Powder Eyeshadow

<u>Formula:</u>	<u>% by Weight</u>
A:	
Talc	25.00
Zinc Stearate	3.00
Iron Oxide (Black)	4.00
Antimicrobial	q.s.
Mearlmica SVA (Mearl)	15.00
Gemstone Moonstone G004	35.00
B:	
Antioxidant	q.s.
Carnation Mineral Oil (Witco)	8.00
C:	
Gemstone Moonstone G004	q.s.

Procedure:

Thoroughly blend and disperse A. Add B into support vessel. Heat and mix until uniform. Spray B into A and continue blending. Pulverize and return to blender. Add C and mix until uniform.

SOURCE: Witco Corp.: Suggested Formulation

Medicated Lip Balm

	<u>%w/w</u>
Beeswax	10.00
Paraffin wax	10.00
AC 617	6.00
Finsolv TN	54.00
C12-15 Alkyl Benzoate	

Combine & heat to 95C. Cool to 80C - add.

Camphor	20.00
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Pour into room temp molds.

Lip Stick Base

	<u>%w/w</u>
Castor Oil	25.0
Polybutene H100	10.0
AC 400 A	5.0
Refined Lanolin	10.0
Candelilla	14.0
Eutanol G (Octyl Dodecanol)	25.0
Polyglyceryl Di-isostearate	11.0

Procedure:

Blend all ingredients and heat to 92-95C. Hold, to be sure that the polyethylene is homogeneous with the blend.

Lipstick Base

	<u>%w/w</u>
1. A-C Polyethylene 617A	8.0
2. Acetylated Lanolin	16.0
3. 2-Ethylhexyl Stearate	6.0
4. Ozokerite 64W	20.0
5. Mineral Oil, 70 ss.	50.0

Procedure:

Weigh all ingredients and heat to 100C, with agitation. When well mixed, cool to 85C and pour into molds.

Ref: 4676-48-8

SOURCE: Allied-Signal, Inc.: Suggested Formulations

Men's Active Wrinkle Smoother

This soft cream, which contains UV-filters, is absorbed instantly and is suitable for men's skin. The combination of Dismutin-BT and Lactomide exerts protecting, skin-firming and anti-inflammatory activity.

<u>Item</u>	<u>Ingredients</u>	<u>Weight%</u>
1	A) Arlatone 985	5.00
2	Brij 721	3.00
3	Arlamol HD	10.00
4	Parсол 1789	1.00
5	Parсол MCX	2.00
6	344 Silicon Fluid	1.00
7	B) Deionized Water	67.90
8	Phenonip	0.50
9	Atlas G-2330	3.00
10	Elhibin	3.00
11	Lactomide	3.00
12	C) Dismutin-BT	0.30
13	Fragrance: Vulcano 0/242294	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add items 12 and 13, one after another.

Application No. A 035.0/02.96

Skin Tightening Gel

This clear, solid gel exhibits immediate skin tightening properties and smoothes the fine wrinkles on the skin. An ideal fresh-up for an evening after a tiring day.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Deionized Water	87.95
2	Phenonip	0.30
3	Imidazolidinyl Urea	0.20
4	Glucam E 10	5.00
5	Carbopol 940	0.75
6	B) Triethanolamine	0.80
7	C) Pentacare-HP	5.00

Procedure:

Dissolve items 2-4 in water (1).

Under vigorous stirring incorporate item 5.

Neutralize with item 6.

Finally add item 7. A clear, solid gel is obtained.

Application No. D 032.0/06.93

SOURCE: Pentapharm Ltd: Suggested Formulations

Moisturizing Gel

This moisturizing gel leaves a non-tacky moisturizing film on the skin. The Hypan functions as a moisturizing film former and helps provide an elegant feel.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	73.90
1	Uniphen P-23	0.30
1	Methylparaben	0.20
1	Hampene Na2T	0.05
1	Panthenol	0.50
1	Glycerine	1.50
1	Hexylene Glycol	1.00
2	Liponic EG-1	0.50
2	Hypan SA 100H	0.15
3	Carbopol ETD 2001 (2% sol'n)	17.50
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.65
5	Dow Corning 344 Fluid	1.50
6	Deionized Water	1.00
6	Unicide U-13	0.25

Procedure:

1. Premix and heat Sequence #1 to 80C with overhead mixer at medium speed with propeller blade.
2. Premix into slurry, Sequence #2 and add to Sequence #1 at 80C with overhead mixer at medium speed.
3. Heat Sequence #3 to 70C and add to batch bringing temperature back to 80C on overhead mixer.
4. Mix Sequence #4 and add to batch at 80C with overhead mixer at medium/high speed.
5. Cool batch to 55C and add Sequence #5 on overhead mixer with propeller blade.
6. Cool batch to 35C and add premixed Sequence #6.
7. Cool to 25C.

SOURCE: Lipo Chemicals Inc.; Formula No. 839

Moisturizing Lip Balm

<u>Formula:</u>	<u>% by Weight</u>
Candelilla Wax	7.00
Carnauba Wax	2.00
Microcrystalline Wax (Witco)	1.00
Synthetic Beeswax	1.50
PEG-75 Cocoa Butter	5.00
Clearlan Lanolin	7.00
Acetate Ester	10.00
Lanolin Oil	5.00
Methyl Paraben	0.30
Propyl Paraben	0.25
BHA	0.05
Castor Oil	60.70

Procedure:

Combine all ingredients and heat with stirring to 75-80C. Maintain the temperature at 80C with stirring until the mixture is clear and molten. Pour into sticks at 75-80C. This product is designed to impart a soft, moisturized feel to lips and to provide a light glossy effect. It can be worn alone or over lip color for shine.

Lipstick

<u>Formula:</u>	<u>% by Weight</u>
Lexemul 515	42.00
Castor Oil	36.80
Carnation Mineral Oil (Witco)	8.00
Pigment	5.00
White Protopet 1S (Witco)	4.00
Carnauba Wax	4.00
Lexgard P	0.20

Procedure:

Melt ingredients together and mix until homogeneous. Pour into molds and cool. Lexemul 515 contributes to this formula's softness and spreadability.

SOURCE: Witco Corp.: Suggested Formulations

MPC - Milk Peptide Complex

MPC contains natural polypeptides from milk, in activated form. A protective environment exclusively comprised of milk components such as lactalbumin, lactoglobulin, lactoferrin, lactose and lactate provides for product stability and maintenance of bioactivity. Bioactivity is standardized in every batch of MPC to a representative concentration range (EC50). In vitro bioassays in cell cultures and in vivo tests on epithelial tissue and on human skin give proof of the bioactivity and cosmetic benefits of MPC.

Anti Cellulite Emulsion, Type O/W
with MPC - Milk Peptide Complex

<u>Ingredients:</u>	<u>Weight%</u>
a) Emulgade 1000 NI	4.00
Lanette 16	1.00
Myritol 318	10.00
Phenonip	0.30
b) Water, distilled	50.00
Carbopol 934	0.40
c) Water, distilled	23.60
Phenonip	0.30
Triethanolamine	0.40
d) Water, distilled	9.36
Na3-Citrate, anhydrous	0.14
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C;
- b) Melt and bring to approx. 70C and add to a) with stirring; Continue stirring until cooled to approx. 30C;
- c) Dissolve and add to ab);
- d) Dissolve at room temperature and add to abc) with stirring. Perfume, homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulation

Night Cream Moisturizer

An elegant, glossy, white, moisture-retaining cream that repairs the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	61.65
2. Acritamer 940 (Carbomer)	0.40
3. Ritaloe 1X (Aloe Vera Gel)	0.20
4. Disodium Oleamido PEG-2 Sulfosuccinate	2.00
5. Propylene Glycol	2.00
6. Hydrogenated Polyisobutene	5.00
7. Dimethicone	2.00
8. Ritapro-165 (Glyceryl Stearate and PEG-100 Stearate)	5.00
9. Mineral Oil	4.00
10. Rita IPP (Isoopropyl Palmitate)	6.00
11. Tocopheryl Acetate	0.25
12. Tocopheryl Linoleate	0.10
13. Rita IPM (Isopropyl Myristate)	0.50
14. Rita Cetearyl Alcohol 70/30	1.50
15. Triethanolamine (99%)	0.40
16. Corn Starch	1.00
17. Germaben II	1.00
18. Raffermine (Hydrolyzed Soy Flour)	3.00
19. Reductine (Oat Protein)	4.00

Compounding Procedure:

Slowly disperse item 2 in item 1. Mix until dissolved. Add items 3-5 and heat to 75C. Combine items 6-14 and heat to 75C. Add to water and mix. Add item 15. Cool to 40C and add items 16-19.

Ref. No. 122-10C

Skin Nutrient Gel

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	87.40
2. Acritamer 940 (Carbomer 940)	0.50
3. Xanthan Gum	0.10
4. 1,3 Butylene Glycol	5.00
5. Ritasil 190 (Dimethicone Copolyol)	0.10
6. Shebu WS (Shea Butter)	1.00
7. TEA @ 99%	0.40
8. Promois ECP (Collagen)	0.20
9. Glydant	0.20
10. Fragrance	0.10
11. Rita HA C-1-C (Sodium Hyaluronate)	5.00

Compounding Procedure:

Disperse item 2 in water. Add item 3 and mix until dissolved. Add items 4, 5 and 6 separately. Add TEA until batch thickens. Add items 8,9,10 and 11. The pH of a gel is 5.5

Ref. No. 122-103B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Nonionic Liquid Makeup

Veegum provides a liquid makeup with uniform, shear coverage. Veegum stabilizes the emulsion while inhibiting pigment settling. The 5:1 Veegum/xanthan gum ratio provides optimum viscosity and flowability. The blend of oil phase ingredients is designed to give emollience without an oily or greasy feel. A nonionic emulsifying system gives maximum stability to the formula at pH 5.5-6.0. The formula is designed specifically for oily skin.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.15
Deionized Water	67.10
Glycerin	4.00
Citric Acid	0.30
B: Talc	5.00
Titanium Dioxide	5.00
Iron Oxides	3.70
C: Mineral Oil (and) Lanolin Alcohol (Ritachol)	5.00
Myristyl Myristate (Crodamol MM)	2.50
Hydrogenated Polyisobutene (Polysynlane)	2.00
Oleyl Alcohol	2.00
Stearyl Alcohol (and) Ceteareth-20 (Cosmowax K)	2.00
Polysorbate 85 (Tween 85)	0.50
D: Preservative	q.s.

Procedure:

Blend Veegum and Rhodigel. Slowly add to the water, while agitating at maximum available shear. Continue mixing until smooth. Add the glycerin and citric acid. Mix until smooth. Mix Part B (grind if necessary) until homogeneous. Add Part B to Part A and mix until uniform. Heat Parts A+B to 60-65C. Heat Part C to 60-65C. Add Part C to Parts A+B and mix while cooling. At 40C, add Part D and mix until uniform.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 349

Oil Free Make-Up with Hypan SR150H

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	48.14
1	Hypan SR150H	0.01
1	Methylparaben	0.25
1	Propylene Glycol	4.60
1	Triethanolamine, 99%	0.90
2	Titanium Dioxide #3328	8.00
2	Iron Oxide Yellow	0.80
2	Iron Oxide Red	0.40
2	Iron Oxide Black	0.10
2	Orgasol 2002D Nat Cos	1.00
3	Deionized Water	20.00
4	Lipovol MOS-70*	10.00
4	Liponate TDTM	1.00
4	Lipo GMS-450	1.00
4	Lipo Stearic Acid	2.50
4	Propylparaben	0.20
5	Deionized Water	1.00
5	Unicide U-13	0.10

*Patent #4,659,573

Procedure:

1. Into main kettle, combine Sequence #1 ingredients under Lightnin' mixing and heat to 60-70C.
2. In auxiliary kettle, combine Sequence #2 ingredients and add to Sequence #1 slowly under Lightnin' mixing.
3. Pass combined Sequences #1 and #2 through colloid mill and recirculate until pigments are evenly dispersed.
4. Rinse colloid mill using Sequence #3 ingredient and add to Sequences #1 and #2 under Lightnin' mixing. Heat combined batch to 76C.
5. In auxiliary kettle combine Sequence #4 under Lightnin' mixing and heat to 82C.
6. At proper temperature add Sequence #4 ingredients to batch under sweep mixing, maintaining temperature until emulsification is complete. Begin cooling to 35C, switching to slow sweep mixing as batch thickens.
7. At 35C add premixed Sequence #5 ingredients to batch and cool to 25C.

SOURCE: Lipo Chemicals Inc.; Formula No. 875

Oil Moisturizer

	Wt%
Mineral Oil	24.75
Lanolin X-tra Deo	5.00
Octyl Dimethyl PABA	0.50
Beeswax	3.00
Ritavena 5	1.50
Borax	0.25
DL Panthenol	0.10
Sorbitan Monooleate	0.80
Color	0.06
Kathon CG	0.20
Distilled Water	63.84

pH: 7.1

Viscosity: 8500 cps

Stabilities:

4F: Separation after 1 cycle

40F: No change after 6 weeks

110F: No change after 6 weeks

Centrifuge Results: After 20 minutes at 5000 RPM

Slight separation

Description of System: Without petrolatum with Ritavena
5 (1.5%)

Formulation 114-34

Oil Moisturizer with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Mineral Oil	24.75
2. Lanolin, X-tra Deo	5.00
3. Octyl Dimethyl PABA	0.50
4. Beeswax	3.00
Part B:	
5. Ritavena 5	1.50
6. Distilled Water (100C)	10.00
Part C:	
7. Distilled Water	53.60
8. Borax (99.5% Pure)	0.25
9. Ritapan DL	0.10
10. Sorbitan Monooleath	0.80
Part D:	
11. Fragrance	0.30
12. Kathon CG	0.20

Compounding Procedure:

Heat Parts A and C to 165F. Pour Part A into Part C. Mix while maintaining 165F for 10 minutes. Premix Part B in a blender for 2 minutes. Add Part B to mixture. Mix until uniform. Cool to 120F. Add Part D. Mix.

Formulation 114-34

SOURCE: R.I.T.A. Corp.: Ritavena 5: Suggested Formulations

O/W-Skin Milk

Manufacturing at room temperature possible

Recipe:

	<u>Wt%</u>
A Hostaphat KML	3.00
Mineral oil, low viscosity	12.00
Almond oil	5.00
Isopropyl palmitate	5.00
Antioxidant	q.s.
B Carbopol 980	0.40
C Caustic soda solution (10%)	2.70
Aquamollin BC pdr.h.c.	0.10
Citric acid (10%)	0.25
Water	71.25
Preservative	q.s.
D Fragrance	0.30

Procedure:

- 1 Stir B into A, then add C and stir well.
- 2 Stir D into 1.
- 3 Homogenize the emulsion.

Formula A VI/1150

O/W-Skin Milk

Manufacturing at room temperature possible

Recipe:

	<u>Wt%</u>
A Hostaphat KL 340 N	1.50
Hostacerin DGI	2.00
Mineral oil, low viscosity	8.00
Isopropyl palmitate	6.00
Cetiol 868	5.00
B Carbopol 980	0.40
C Caustic soda solution (10%)	1.60
Water	75.20
Preservative	q.s.
D Fragrance	0.30

Procedure:

- 1 Mix A and B, then add C and stir well.
- 2 Add D to 1 while stirring.
- 3 Finally homogenize the emulsion.

Formula A VI/1118

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

O/W-Skin Milk

"Contains no ethylene oxide", manufacturing at room temperature possible

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGI	2.00
	Mineral oil, low viscosity	3.00
	Isopropyl palmitate	4.00
	Squalane	2.00
	Eutanol G	4.00
	Walnut oil	3.00
	Antioxidant	q.s.
B	Carbopol 980	0.50
C	Hostapon KCG	0.80
	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.50
	Caustic soda solution (10%)	1.80
	PEG 400	3.00
	Hoechst Potassium Sorbate	0.25
	Germall II	0.25
	Water	74.40
D	Fragrance	0.30

Procedure:

- 1 Stir B into A, then add C and stir well.
 - 2 Add D to 1.
 - 3 Finally homogenize the emulsion.
- Formula A VI/1253

O/W-Skin Milk

"contains no ethylene oxide"

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGMS	2.00
	Mineral oil, high viscosity	8.00
	Isopropyl palmitate	5.00
	Cetiol 868	4.00
B	Carbopol 980	0.30
C	Hostapon KCG	0.60
	Caustic soda solution (10%)	1.20
	Glycerin	4.00
	Water	74.60
	Preservative	q.s.
D	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
 - 2 Heat C to ca. 70C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 At ca. 35C add D to 3.
 - 5 Finally homogenize the emulsion.
- Formula A VI/1252

SOURCE: Hoechst: Guide Recipes to the Cosmetic Industry

Petroleum Oil/Petroleum Wax Free Lipstick**Formulating Design and Advantages:**

This lipstick is a creamy stick that does not use any petroleum oils or waxes in the formula, nor does it use any synthetic raw materials that have petroleum products in it.

Oil Phase I:	Wt%
Hydroxy Polyester (Koster Keunen)	3.7
Rice Bran Oil (Koster Keunen)	5.0
Octyl Palmitate (Inolex)	9.0
Castor Oil (Alnor)	38.0
PEG Carnauba (Koster Keunen)	1.3
Titanium Dioxide Powder (Whittaker C&D)	2.0
Silicone Oil 556 (Dow Corning)	10.0
D&C Red #30 (Clarke)	3.0
Oil Phase II:	
K80-D22 (Koster Keunen)	5.0
Synthetic Candelilla (Koster Keunen)	9.0
Hexanediol Behenyl Beeswax (Koster Keunen)	7.0
Deodorized Orange Wax (Koster Keunen)	4.0

Procedure:

Mix Phase I, heat to 75C breaking up any small agglomerates. Cool. Repeat two more times. Reheat to 75C and add Phase II that has been heated to 75C. Cool to 65C and pour into molds.

Adaptation of Formula and Its Influence on the Product:

Various oil substitutions can be made to suit formula.

Lip Gloss with Sun Protection**Formulating Design and Advantages:**

This product protects the lips from the sun, with the help of the PEG Carnauba and Deodorized Orange Wax while adding moisture and color to the lips.

Formula:	Wt%
1. PEG Carnauba (Koster Keunen)	5.0
2. Deodorized Orange Wax (Koster Keunen)	5.0
3. White Petroleum (Witco)	26.1
4. Shea Butter (Koster Keunen)	5.0
5. Jojoba Oil (Jojoba Growers)	2.0
6. Hexanediol Behenyl Beeswax (Koster Keunen)	10.5
7. Caprylic/Capric Triglyceride (Inolex)	45.0
8. Gamma Orzanol (Koster Keunen)	0.6
9. Pigments	0.8

Procedure:

Combine 9, 1, 2, heat till dispersed. Add the rest of the ingredients to the batch, except the gamma orzanol which should be added last, after everything has been dispersed.

Adaptation of Formula and Its Influence on the Product:

To make the product with greater gloss it would normally require more petroleum. To make the product softer less wax should be used.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Pressed Powder Blush

<u>Formula:</u>	<u>% by Weight</u>
A:	
Talc	50.30
Zinc Stearate	7.00
Shinju 100T (Mearl)	11.00
Mearlite GBU (Mearl)	6.50
Timica Sparkle 110P (Mearl)	1.25
Cloisonne' Cerise Flambe 550Z (Mearl)	1.10
Cloisonne' Blue Flambe 650Z	2.60
Iron Oxide (Brown)	1.75
Iron Oxide (Russet)	2.00
Iron Oxide (Tan)	1.00
Antimicrobials	q.s.
B:	
Fragrance	q.s.
Antioxidant	q.s.
Carnation Mineral Oil (Witco)	2.90
Sorbitan Diisostearate	2.90
C:	
Flamenco Superpearl 120C (Mearl)	4.70
Cloisonne' Monarch Gold 233X (Mearl)	5.00

Procedure:

Blend and disperse A in dry blending/dispersing equipment. In separate vessel combine B and heat and mix until uniform. Spray B into premixed A and continue blending. Pulverize and return to blender. Add C and mix until uniform.

Pressed Powder Eyeshadow

<u>Formula:</u>	<u>% by Weight</u>
A:	
Mearltalc TCA (q.s. to 100) (Mearl)	45.00
Zinc Stearate	6.00
Mearlmica CF (Mearl)	34.00
Chromium Oxide Green	3.00
Iron Oxide (Yellow)	6.00
Antimicrobial	q.s.
B:	
Antioxidant	q.s.
Squalane	2.50
Carnation Mineral Oil (Witco)	3.50

Procedure:

Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. Add Phase B ingredients into a support vessel. Heat and mix until uniform. Spray phase B into premixed A and continue until uniform. Pulverize and press.

SOURCE: Witco Corp.: Suggested Formulations

Purified Bentonite Refining Mask

Veegum HS is classified as "Purified Bentonite" in the USP/NF. This mask formulation is for all skin types and takes advantage of the recognized absorbative and cleansing properties of bentonite. Apply a thin coating to the face. Allow it to dry or remove it after 10 to 15 minutes before it is completely dry. Rinse off with clear water and a soft cloth or cotton ball.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum HS, Magnesium Aluminum Silicate	4.00
Rhodigel, Xanthan Gum	0.30
Deionized Water	43.70
B: Sucrose	15.00
Glycerin	10.00
DEA-Oleth-3 Phosphate (Crodafos N-3 Neutral)	5.00
C: Propylene Glycol (and) Grape Extract (and) Hypericum Extract (and) Arnica Extract (and) Witch Hazel Extract (and) Horse Chestnut Extract (and) Ivy Extract (Phytelene Complex EGX 243)	3.00
Propylene Glycol (and) Calendula Extract (and) Chamomile Extract (and) Linden Extract (and) Cornflower Extract (and) Matricaria Extract (and) Hypericum Extract (Phytelene Complex EGX 244)	3.00
Allantoin	1.00
Oat Flour (Ster-O-Pro)	10.00
Zinc Oxide	5.00
D: Preservative	q.s.

Procedure:

Dry blend the Veegum HS and Rhodigel. Add them to the water, agitating at maximum available shear until smooth. Add the Part B ingredients and mix until smooth. Add the Part C ingredients in the order shown and mix each until uniform. Add Part D and mix until uniform.

* As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 419

Silky Shadow

<u>Phase#:</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	1625 Talc	17.60
1	Silk Mica	30.00
1	Biron B-50	5.00
1	Siltex M Super	3.50
1	Zinc Stearate #695	3.50
1	Hubersorb 600	0.50
1	7055 (Yellow iron oxide)	10.00
1	7054 (Red iron oxide)	7.50
1	7133 (Black iron oxide)	2.00
1	Methyl Paraben	0.20
1	Propyl Paraben	0.10
2	Trivent OC-G	9.05
2	Emerest 2452	0.50
2	Schertermol CP	0.50
2	BHA	0.05
3	Timiron MP-24 Gold Karat	10.00

Procedure:

Combine phase #1. Pulverize with a hammer mill, passing twice through an 0.027" herring bone screen. Combine phase #2. Heat to 65C with stirring. Spray onto batch while agitating the bulk. Pulverize once through the 0.027" screen. Add phase #3. Blend in with gentle agitation. Do not pulverize.

Formulation P 2133

Powder Eyeshadow

	<u>Wt%</u>
Supra Talc	9.70
Biron ESQ	20.00
Microcel E	1.00
Orgasol 2002 UD Nat Cos	5.00
43001 (manganese violet)	15.00
43W1810 (ultramarine blue)	15.00
33-5198 (black iron oxide)	2.00
Mica M-RP	15.00
Magnesium Myristate	9.00
Methyl Paraben	0.20
Propyl Paraben	0.10
Ceraphyl 847 Octyldodecyl Stearoyl Stearate	6.95
Emerest 2452	0.50
Cetyl Palmitate	0.50
Oxyhex LM	0.05

Manufacturing Procedure:

Combine the pigments and fillers with tumbling agitation. Pulverize using a hammer mill twice through an 0.027" screen. Combine the oil phase. Heat to 70C until homogeneous. Spray onto batch while agitating.

Formulation P3-57-6

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Silky Smooth Emollient Liquid Makeup

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum Plus, Magnesium Aluminum Silicate (and) Cellulose Gum	1.00
Deionized Water	53.50
Glycereth-26 (Liponic EG-1)	10.50
Triethanolamine, 99%	0.75
B: Iron Oxides	1.29
Talc	1.00
Titanium Dioxide	3.00
C: Isopropyl Isostearate	9.06
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	6.50
Isopropyl Palmitate	4.00
Isopropyl Myristate	2.50
Hydrogenated Soy Glyceride (Myverol 18-06)	2.10
Stearic Acid XXX	1.60
Diethyl Adipate (and) Octyl Stearate (and) Octyl Palmitate (1.1% by wt Wickenol 161 + 1.0% by wt Wickenol 163)	2.10
Vanseal CS, Cocoyl Sarcosine	1.00
Lithium Stearate	0.10
D: Preservative	q.s.

Heat the water to 70-75C. Add the Veegum Plus and mix at 1800 rpm for 20 minutes. Slowly mix in the remaining Part A ingredients. Mix the Part B ingredients thoroughly into Part A until uniform. Maintain temperature at 70 to 75C. Heat Part C to 70 to 75C and add to Parts A+B. Mix until cooling. At 40C, add Part D and mix until uniform.

Mascara

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Demineralized Water	56.10
Veegum, Magnesium Aluminum Silicate	1.20
Butylene Glycol	10.00
Cellulose Gum (CMC 7MF)	0.60
Methylparaben	0.20
Diazolidinyl Urea (Germall II)	0.20
Triethanolamine, 99%	1.50
B: Candelilla Wax	10.00
Stearic Acid	7.00
Isostearic Acid	1.00
Mineral Oil	2.00
Propylparaben	0.20
C: Iron Oxide (C33-134 Cosmetic Black)	10.00

Into a side kettle add all Part B ingredients. Into the main kettle, fitted with a homogenizer type disperser, weigh the following: water; sprinkle in the Veegum; it is thoroughly dispersed add the butylene glycol; dust in the CMC; when the CMC is completely dispersed add the remaining Part A ingredients. Dust in Part C ingredients with high milling and raise the temperature to 76C. Heat Part B to 79C and mix until uniform. Add Part B to the main kettle with high milling for 15 min. Sweep cool to room temperature to eliminate the air.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Formulas No. 460 & Sun Chemical

Topical Spray Powder

<u>Ingredients:</u>	<u>% by Weight</u>
Anhydrous Ethanol	42.00
AMP Regular	0.38
Dermacryl-79	2.00
Dry-Flo PC	10.00
Propellant A-46	45.62

Procedure:

Dissolve AMP in ethanol. While maintaining good agitation, slowly sift in Dermacryl-79. When solution is complete, sift in Dry-Flo PC. Mix well until homogeneous. Fill cans.

Valve: Seaquist NS-41

Stem Orifice: 2 x 0.025

Gasket: Buna P 0.042" THK Code 150

Cup: Regular, Epoxy Top, Laminate Bottom Dimpled,
Code 1610, Taperseal

Spring: 0.020 SS

Seat: None

Body: 0.062 Standard

Vapor Tap: 0.018"

Tubing ID: 0.165"

A-D Dim: Actual 8

Actuator Style: Excell 100 Misty

Orifice Size: 0.018" Misty

Formulation PF-0373 suggested by National Starch & Chemical Co. (7423-85B)

Hydroalcoholic Fragranced Spray Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Stabileze XL-80W	24.60-17.14
200 proof ethanol	70.00-77.59
AMP-95	0.40- 0.27
Vanilla BB-36943	5.00- 5.00

Procedure:

1. Add Ethanol to Stabileze XL-80W and mix well.
2. Add AMP-95 to the batch and mix well.
3. Add a fragrance and mix well.
4. Package.

Physical Characteristics:

A clear yellowish sprayable gel.

Apparent pH: 6.0

Stability: Stable at RT for 3 months.

Recommended Sprayer: Calmar Mark IV

Formulation PF-0378 suggested by ISP (10227-5)

SOURCE: Angus Chemical Co.: Product Formulary

Vitamin F Skin Moisturizer

<u>Formula:</u>	<u>% by Weight</u>
A:	
Stearic Acid	4.0
Cetiol MM Myristyl Myristate	5.0
Carnation Mineral Oil (Witco)	10.0
Lanette O Cetearyl Alcohol	1.5
Vitamin F Forte CLR	1.0
B:	
Water	76.8
Dowicil 200	0.1
Carbopol 941	0.2
C:	
Triethanolamine	1.0
D:	
D&C Yellow No. 5 (0.1 aq.)	0.2
Fragrance	0.2

Procedure:

Mix and heat Part A to 65-70C. Disperse Carbopol 941 into water and mix Part B. Add C to B and heat to 65-70C. Add B-C to Part A and mix until cooled to 40C. Add D when cooled to 35-40C. Adjust pH to 7.5.

Body Smoother

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Super Sterol Ester	10.0
Polawax (Croda)	7.5
Crodacol C-95 (Croda)	2.0
Carnation Mineral Oil (Witco)	10.0
Water Phase:	
Croquat M (Croda)	2.0
Glycerine	5.0
Germaben II	1.0
Water, Deionized	61.5
Hydrosol 2000/SF (Croda)	1.0

Procedure:

Heat oil phase to 75-78C. Heat water phase to 75-80C. Add water to oil with good agitation. Mix. Cool to 45C. Add Hydrosol 2000/SF.

SOURCE: Witco Corp.: Suggested Formulations

Waterproof Special Effects Mascara

<u>Phase #:</u>		<u>Wt%</u>
1	Soltrol 100	30.95
1	Polyethylene 6A	11.00
1	Candelilla wax	4.50
1	OHlan	0.25
2	Pentalyn C	2.00
2	Soltrol 100	2.00
3	Methyl Paraben	0.20
3	Propyl Paraben	0.10
4	Zinc Stearate	1.00
5	Bentone Gel SS71	35.00
6	Pearl Pigment	

Rona Pearl Pigment Combinations:

A	Dichrona BG	13.00
B	Colorona Dark Blue	13.00
C	Transparent Black	13.00
D	Colorona Magenta	10.00
E	Colorona Majestic Green	10.00
F	Colorona Dark Blue	10.00
G	Dichrona BG	10.00

Procedure:

Prepare phase #2 in advance: combine in a closed vessel. Heat to 65-70C with constant Lightnin' mixer agitation until clear.

Combine phase #1 in a closed vessel. Heat to 90-95C with Lightnin' mixer agitation. When clear, add to remaining phases in order, insuring that each is fully dispersed before proceeding. Cool to 30C with sidesweep agitation. At 55C, check for solvent loss and adjust if necessary.

SOURCE: Rona/EM Industries, Inc.: Formulation AN251

W/O Liquid FoundationIngredients:Weight%**Phase A:**

Cetyl Dimethicone Copolyol (Abil EM-90)	2.00
Polyglyceryl-3 Oleate (Isolan GO-33)	1.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Octyl Palmitate (Tegosoft OP)	1.00
Hydrogenated Castor Oil	0.40
Beeswax	0.80

Phase B:

Cyclomethicone	18.00
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Phase C:

Red, Yellow, Black Iron Oxides	3.00
Titanium Dioxide	7.80
Talc	1.70

Phase D:

Butylene Glycol	2.80
Water	60.00
Sodium Chloride	0.50

Phase E:

Fragrance	Q.S.
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Procedure:

1. Combine ingredients of Phase A. Mix and heat to 85-90C. Mix until uniform.
2. Cool to 50C. Add Cyclomethicone.
3. Add ingredients of Phase C. Mix thoroughly to disperse.
4. Cool to 50C with mixing.
5. Combine ingredients of Phase D at ambient temperature. Add Phase D slowly to A/B/C mixture with slow agitation.
6. Increase agitation speed after all of Phase D is added. (10-15 minutes).
7. Homogenize.
8. Fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

W/O Moisturizing Emulsion

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 812 (Caprylic/Capric Triglyceride)	8.00
Dynacerein 660 (Oleyl Erucate)	5.00
Softisan 645 (Bis-diglyceryl Polyacryladipate-2)	4.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	3.00
Abil WE 09 (Polyglyceryl-4-Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	4.00
Lunacera M (Hydrogenated Microcrystalline Wax)	1.00
B) D-Panthenol	2.00
Preservative	q.s.
Water	67.00
C) Tocopheryl Acetate	3.00
Hydroviton (Water (and) Sodium Lactate (and) Lactic Acid (and) Glycerin (and) Serine (and) Sorbitol (and) TEA-Lactate (and) Triethanolamine (and) Urea (and) Sodium Chloride (and) Lauryl Diethylenediaminoglycine (and) Allantoin (and) Laurylaminopropylglycine (and) SD Alcohol 39-C)	3.00

Preparation:

(A) is heated to 65 degrees C. and homogeneously mixed. (B) is brought to the same temperature and then emulsified into (A). (C) can be mixed with the water phase or added in afterwards.

Formulation 1.2K

Skin Care Oil with Citric Acid Ester

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	10.00
Miglyol 810 (Caprylic/Capric Triglyceride)	40.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	20.00
Softigen 701 (Glyceryl Ricinoleate)	1.00
Mineral Oil	29.00
Antioxidants	q.s.
Fragrance Men At Sport 61569	0.30

Preparation:

All ingredients are mixed together at about 45 degrees C.

Formulation 1.5U (1)

SOURCE: Huls America Inc.: Suggested Formulations

W/O Sheer Make-Up

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM 90)	2.00
Polyglyceryl-3 Oleate (Isolan GO 33)	0.75
Cetyl Dimethicone (Abil Wax 9801)	2.00
Octyl Palmitate (Tegosoft OP)	3.00
Hydrogenated Castor Oil	0.40
Beeswax	0.80
Decyl Oleate (Tegosoft D0)	1.00
Dimethicone 350 cst	0.25
Octyl Stearate (Tegosoft OS)	3.00
Phase B:	
Cyclomethicone	15.00
Phase C:	
Iron Oxides: Red, Yellow, Black, Brown	0.30
Titanium Dioxide	2.10
Phase D:	
Water	66.90
Sodium Chloride	0.50
Propylene Glycol	2.00

Procedure:

1. Combine ingredients of Phase A. Mix and heat to 85-90C. Mix until uniform.
2. Cool to 70C. Add Cyclomethicone.
3. Add ingredients of Phase C. Mix thoroughly to disperse.
4. Cool to 50C with mixing.
5. Combine ingredients of Phase D at ambient temperature. Add Phase D slowly to A/B/C mixture with gentle agitation.
6. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Section V

Creams

AEC Cocoa Butter Cream

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Light Mineral Oil	20.000g
2 Petroleum Jelly; White	25.000g
3 Cocoa Butter, Refined	44.000g
4 Castorwax Mp80	10.000g
Cooling Cycle:	
5 Vitamin E Acetate	0.500g
6 Carrot Oil; Novarom	0.100g
7 P. Cocoabutter AA 6780	0.400g

Mixing Instructions:

Change in material proportions to make it less draggy and nearer Palmers Original.

Use a jacketed kettle suitable for heating and cooling, preferably fitted with a gate or anchor type mixer.

Stage 1: Weigh in the mineral oil and commence heating with slow stirring.

Add Petroleum Jelly and continue heating and stirring until all melted.

Add Cocoa Butter and Castor Wax and continue heating and stirring until all melted, the temperature should not exceed 60C.

When a clear, homogeneous mix is obtained start cooling with continuous mixing.

Cooling Stage: Add the Vitamin E Acetate and Carrot Oil at about 55C and the Perfume at about 40C.

The product will thicken and then set, ideally it should be hot filled just above its setting temperature. Some experimental batches may be necessary to determine the optimum filling temperature.

Project: JW 2527/Formula Ref.: 1186*3

Cocoa Butter Cream

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Light Mineral Oil	17.000g
2 Cocoa Butter, Refined	42.000g
3 Petroleum Jelly; White	32.500g
4 Castorwax Mp80	8.000g
Cooling Cycle:	
5 P. Cocoabutter AA 6780	0.500g

Mixing Instructions:

Weigh out the mineral oil and start heating.

Add each item in turn, mix and continue heating until all ingredients have melted.

Switch off heat and cool with slow mixing, add the perfume at 40C.

The product may then be filled hot.

Project: JW 2450/Formula Ref. 1005*0

SOURCE: A & E Connock Ltd.: Suggested Formulations

AHA Renewal Cream

This elegant, white AHA-cream with low pH is an active anti-wrinkle formula. Pentavitin reduces skin's sensitivity preventing from irritation reactions. Furthermore, Pentavitin increases the moisture content of the skin.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Promulgen D	3.50
2	Soya Oil	1.00
3	Arlacel 165	3.50
4	Myrj 59	1.00
5	Dow Corning 345 Fluid	2.50
6	Fitoderm	5.00
7	Miglyol 812	4.00
8	B) Deionized Water	60.00
9	Phenonip	0.30
10	Glycerin	3.00
11	1,3-Butandiol	3.00
12	Pemulen TR-1	0.20
13	C) Deionized Water	2.50
14	Imidazolidinyl Urea	0.20
15	Glycolic Acid	5.00
16	Pentavitin	5.00
17	D) Triethanolamine	
18	Fragrance: Rivalia 0/221212	0.30

Procedure:

Disperse Pemulen (12) in phase B) and heat to 75C.
Heat phase A) to 70C. Under stirring, add phase A) to phase B), cool to 50C, homogenize and cool to 30C. Add phase C) and adjust pH with item 17 to 3.5. Add fragrance (18) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 034.1/03.96

Glycerin Cream with Citric Acid Esters

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	5.00
Imwitor 900 (Glyceryl Stearate)	4.00
Miglyol 812 (Caprylic/Capric Triglyceride)	5.00
Paraffin, White	5.00
Cetyl Alcohol	4.00
B) Keltrol F (Xanthan Gum)	0.50
Glycerin	5.00
Preservative	q.s.
Water	71.50

Preparation:

(A) is heated to ca. 65 degrees C. (B) is heated up to the same temperature and emulsified into (A). The cream is constantly stirred until cool.

SOURCE: Huls America Inc.: Formulation 1.10

Alpha Hydroxy Acid Liposome Cream

An elegant white creamy emulsion delivering Rovisome AHA (Lactic Acid) to the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita Cetearyl Alcohol (50/50)	2.50
2. Steareth-2	2.50
3. Steareth-21	1.50
4. PPG-15 Stearyl Ether	3.00
5. Dioctyl Adipate	3.00
6. Dioctylcyclohexane	2.00
7. Dow Corning 200 Fluid (200 cst)	2.00
8. Ritasil 190 (Dimethicone Copolyol)	0.50
9. Sunflower Seed Oil	4.00
10. Distilled/Deionized Water	68.40
11. 1,3 Butylene Glycol	4.00
12. Xanthan Gum (Keltrol CG-T)	0.30
13. Rovisome-AHA (Lactic Acid)	6.00
14. Methyl dibromo Glutaronitrile and Phenoxyethanol	0.30

Compounding Procedure:

Disperse item 12 in water and butylene glycol mixture. In separate beaker heat items 1-9 to 70C. Heat water phase to 70C and add to oil phase. Then homogenize and cool to 35C. Add Rovisome and preservative.

Ref. No. 122-94

Washable Cleansing Cream

A glossy cleansing cream with water rinsability and residual emollience. Clariskin helps to attenuate skin brown spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritalan (Lanolin Oil)	3.00
2. Mineral Oil (Drakeol-9)	20.00
3. Stearic Acid	5.00
4. Rita CA (Cetyl Alcohol)	3.00
5. Distilled/Deionized Water	54.00
6. Glycerine	5.00
7. Triethanolamine (50%)	3.00
8. Ritabate-60 (Polysorbate-60)	2.00
9. Glydant	q.s.
10. Perfume	q.s.
11. Clariskin (Yeast Extract)	5.00

Compounding Procedure:

Heat 1-4 items to 70C. Heat items 5-9 to 65C. Add oil phase to water phase with agitation. Cool to 40C and add items 10 and 11.

Ref. No. 122-108

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Anti-Wrinkle Cream

<u>Material:</u>	<u>%w/w</u>
Water; Pure	65.250
Caprylic/Capric Triglyceride	7.000
Propylene Glycol USP	5.000
AEC Octyl Palmitate	5.000
AEC Hydroxyoctacosanyl Hydroxystearate	5.000
AEC PEG 45 Dodecylglycol Copolymer	4.000
Cocoa Butter, Refined	3.000
GMS NSE	3.000
AEC Methoxy Peg 22 Dodecylglycol Copolymer	2.000
Nipaguard BPX	0.500
Fragrance	0.250

Formula Ref.: 1081*0

AEC Cocoa Butter Cream

<u>Material:</u>	<u>%w/w</u>
Cocoa Butter, Refined	44.000
Petroleum Jelly; White	25.000
Light Mineral Oil	20.000
Castorwax Mp80	10.000
Vitamin E Acetate	0.500
P. Cocoabutter AA 6780	0.400
Carrot Oil; Novarom	0.100

Formula Ref.: 1186*3

Cocoa Butter Cream

<u>Material:</u>	<u>%w/w</u>
Cocoa Butter, Refined	42.000
Petroleum Jelly, White	32.500
Light Mineral Oil	17.000
Castorwax Mp80	8.000
P. Cocoabutter AA 6780	0.500

Formula Ref.: 1005*0

SOURCE: A&E Connock, Ltd.: Suggested Formulations

Anti-Wrinkle Moisturizing Cream

A moisturizing cream formulation that gives a smooth, creamy product that fights wrinkles.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritachol 1000 (R.I.T.A. Blend)	3.00
2. Rita CA (Cetyl Alcohol)	3.00
3. Rita GMS (Glyceryl Stearate)	1.00
4. Stearic Acid	2.75
5. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00
6. Ritaderm (R.I.T.A. Blend)	10.00
7. Rita SSO (Sunflower Seed Oil)	4.00
8. BHA	0.10
9. Propylparaben	0.10
10. Distilled/Deionized Water	64.50
11. Acritamer 940 (Carbomer)	0.10
12. Glycerine	5.00
13. Methylparaben	0.10
14. Triethanolamine (99%)	1.25
15. Reductine (Oat Protein)	2.00
16. Quaternium 15 (20% Solution)	0.10
17. Fragrance	1.00

Compounding Procedure:

Heat items 1-7 to 70C. Slowly add item 11 to item 10 while stirring. Continue stirring until a homogeneous mixture is formed. Add items 12-14 to items 10-11 and heat to 70C. Add oil to water at 70C while stirring. Begin cooling. At 40C add items 15-17.

Ref. No. 120-188

Anti-Wrinkle Treatment Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita Cetearyl Alcohol 50/50	2.50
2. Steareth-2	2.50
3. Steareth-21	1.50
4. PPG-15 Stearyl Ether	3.00
5. Dioctyl Adipate	3.00
6. Dioctylcyclohexane	2.00
7. Cyclomethicone	2.00
8. Dimethicone	0.50
9. Rita SSO (Sunflower Seed Oil)	4.00
10. Distilled/Deionized Water	68.40
11. 1,3-Butylene Glycol	4.00
12. Xanthan Gum	0.30
13. Reductine (Oat Protein)	6.00
14. Methylidibromo Glutaronitrile	0.30

Compounding Procedure:

Disperse item 12 in water and butylene glycol mixture. Heat to 70C. Combine items 1-9 and heat to 70C. Add to water phase. Mix and cool to 30C. Add items 13 and 14.

Ref. No. 120-193

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Anti-Wrinkle Treatment Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita Cetearyl Alcohol 50/50	2.50
2. Steareth-2	2.50
3. Steareth-21	1.50
4. PPG-15 Stearyl Ether	3.00
5. Dioctyl Adipate	3.00
6. Dioctyl Cyclohexane	2.00
7. Dow Corning 200 Fluid (200 cst)	2.00
8. Ritasil 190 (Dimethicone Copolyol)	0.50
9. Sunflower Seed Oil	4.00
10. Distilled/Deionized Water	64.40
11. 1,3 Butylene Glycol	4.00
12. Xanthan Gum	0.30
13. Rovisome ACE (ROVI Blend)	5.00
14. Reductine (Oat Protein)	5.00
15. Methyl dibromo Glutaronitrile and Phenoxyethanol	0.30

Compounding Procedure:

Disperse item 12 in items 10 and 11 and heat to 70C. Mix items 1-9 and heat to 70C. Add water phase to oil phase, then homogenize. Cool to 35C and add items 13-15.

Ref. No. 122-96

Night Cream

A smooth, moisturizing cream containing Clariskin for preventing and attenuating age spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritachol 2000 (R.I.T.A. Blend)	8.00
2. Rita SA (Stearyl Alcohol)	2.50
3. Mineral Oil (Britol-7)	12.00
4. Lanolin X-Tra Deo	1.00
5. Ritaderm (R.I.T.A. Blend)	10.00
6. Propylparaben	0.10
7. Butylated Hydroxyanisole	0.10
8. Distilled/Deionized Water	55.96
9. Acritamer 941 (Carbomer)	0.10
10. Propylene Glycol	5.00
11. Methylparaben	0.10
12. Triethanolamine 99%	0.10
13. Bromopol	0.04
14. Clariskin (Yeast Extract)	5.00
15. Perfume	q.s.

Compounding Procedure:

Combine items 1-7 and heat to 75C. Disperse item 9 into water until lump free. Add items 10 and 11 and heat to 75C. Add oil phase to water phase with agitation. Cool to 40-45C and add items 13-15. Cool to 25-30C and package.

Ref. No. 122-81B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Basic-Cream with AHA-Esters, Food Approved

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Antioxidant	q.s.
B. Glycerol	5.00
Preservative	q.s.
Water, ad	100.00
Fragrance	q.s.

Preparation:

Ingredients of A are heated to about 70C. B is brought to the same temperature and emulsified into A. The cream is stirred cold and at about 30C fragrance is added.

Formulation BAS FO

Eye Wrinkle Cream with UV Absorber

With citric acid ester as active ingredient

<u>Ingredient:</u>	<u>Weight%</u>
A. Miglyol 818 (Caprylic/Capric/Linoleic Triglyceride)	5.00
Miglyol 829 (Caprylic/Capric/Diglyceryl Succinate)	5.00
Dynacerin 660 (Oleyl Erucate)	5.00
Imwitor 370 (Glyceryl Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	8.00
Evening Primrose Oil	3.00
Antioxidant	q.s.
B. Keltrol F(Xanthan Gum)	0.50
Methocel K 100 LV (Hydroxymethylcellulose)	0.50
Preservative	q.s.
Water, ad	100.00

Preparation:

Ingredients of A are heated to about 70C. To build phase B Keltrol F and Methocel is dispersed in water and stirred to homogeneity. Then B is brought to the same temperature and emulsified into A.

The cream is stirred cold.

Formulation EYE OW

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Bleaching Night Cream Against Age Spots

This agreeable, rich night cream contains Fadeout, which has bleaching activity. Pentavitin provides the skin with moisture and regenerates the skin.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Cremophor A-6	2.50
2	Cremophor A-25	2.50
3	Cutina GMS	4.00
4	Lanette-O	3.00
5	Stearic Acid	1.00
6	Paraffin oil	10.00
7	Cetiol SN	5.00
8	Vaseline white	3.00
9	Abil-350	0.40
10	B) Water demineralized	54.60
11	Imidazolidinyl urea	0.20
12	Phenonip	0.50
13	Glycerin	3.00
14	Pentavitin	5.00
15	Fadeout	5.00
16	C) Fragrance/Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 032.B/01.96

Cleansing Cold Cream W/O**Formulating Design and Advantages:**

This classic product has a natural mild orange aroma which refreshes while deeply cleansing the skin of dirt and oils, leaving the skin smooth and silky. Natural anti-microbial agents inherent in the beeswax and orange wax preserve this product along with the pH (pH=8).

Oil Phase:	Wt%
NF White Beeswax (Koster Keunen)	10.0
Ceresine Wax 130/135 (Koster Keunen)	6.0
Deodorized Orange Wax (Koster Keunen)	4.0
Light Mineral Oil (Witco)	38.5
Propylene Glycol Stearate (Inolex)	2.0

Water Phase:	
Water (Distilled)	27.5
Carbopol 940 2% Solution (BF Goodrich)	10.0
Sodium Borate (Borax)	2.0

Procedure:

Add Carbopol solution to the water phase mix and heat to 75C, add borax under agitation. Mix and melt oil phase to 75C. Add oil phase to the water phase while mixing. Cool and pour into containers.

Adaptation of Formula and Its Influence on the Product:

Small changes in this formula are possible, such as, reducing the concentration of the orange wax will eliminate the natural orange aroma. Plant oils can be added in low concentrations for label claims.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hand Care Cream

	Wt%
Part A: Sulfetal CJOT 60	10.0
Imwitor 960	14.0
Part B: Water	75.5
Part C: Perfume, preservative	0.5

Mix part A and C separately. Add part B and C successively to part A whilst stirring.

Adjust pH to approx. pH 6.5 using citric acid.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 27/18

Cream Foundation

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	39.80
B: Veegum Ultra, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.20
C: Propylene Glycol	5.00
D: Iron Oxides	2.17
Titanium Dioxide	8.83
E: Cetearyl Alcohol (and) Ceteareth-20 (Lipowax D)	4.00
Ceteareth-4 (Lipocol SC-4)	2.00
Decyl Oleate	4.00
Mineral Oil	20.00
Stearic Acid	2.00
Lanolin Oil	3.00
PPG-15 Stearyl Ether	3.00
Phenoxyethanol (and) Methylparaben (and) Ethylparaben	
(and) Propylparaben (and) Butylparaben (Uniphen P-23)	1.00
Isopropyl Myristate (and) Lecithin (and)	
Tocopherol (Unipheryl U-14)	0.70
F: Trimethyldodecatrienol (Unistab S-69)	0.50
Farnesyl Acetate (and) Farnesol (and) Panthenyl	
Triacetate (Unitrienol T-27)	2.00
G: Water	0.50
Imidazolidinyl Urea (Unicide 4-13)	0.30

Procedure:

Dry blend the Part B ingredients. Heat the Part A water to 70C. Add the Part B ingredients and mix for 30 minutes with a propeller mixer at 1800 rpm. Add Part C and mix 5 minutes. Add the Part D ingredients simultaneously and mix until uniformly dispersed. Mix and heat the Part E ingredients to 70C. Add Part E to Parts A+B+C+D and mix 10 minutes. Slow the mixer and cool the batch to 45C and add Parts F and G in the order shown. Continue cooling to 30C and package.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulation from Induchem AG

Cream, Type O/W, with MPC-Milk Peptide Complex*

	<u>Weight%</u>
a) Emulgade 1000 NI	4.00
Lanette 16	1.00
Myritol 318	10.00
Phenonip	0.30
b) Water, distilled	50.00
Carbopol 934	0.40
c) Water, distilled	23.60
Phenonip	0.30
Triethanolamine	0.40
d) Water, distilled	9.36
Na3-Citrate, anhydrous	0.14
MPC-Milk Peptide Complex	0.50

Manufacture:

Melt a) and bring to approx. 70C.

Melt b), bring to approx. 70C and add to a) with stirring.

Continue stirring until cooled to approx. 30C.

Dissolve c) and add to ab).

Dissolve d) at room temperature and add to abc) with stirring.

Perfume, homogenize

Cream, Type W/O, with MPC-Milk Peptide Complex

	<u>% by Weight</u>
a) Arlacel 1689	3.00
G-4909	0.50
Lunacera M	3.00
Paraffinum subliquidum	12.00
Beeswax	0.50
Vaseline	6.00
Cocoa butter	4.00
Vegetable oil	4.00
Phenonip	0.30
Oxyhex LM	0.05
b) Water, distilled	51.85
Phenonip	0.30
Glycerin	4.00
Magnesium sulfate	0.50
c) Water, distilled	9.38
Na3-Citrate x 2H2O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

Melt a) and bring to approx. 75C.

Bring b) to approx. 75C and stir into a).

Continue stirring until cooled to approx. 30C.

Dissolve c) at room temperature and add to ab) with stirring.

Perfume, roll.

*MPC-Milk Peptide Complex contains natural polypeptides from milk, in activated form.

Day Cream with Evening Primrose Oil

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 818 (Caprylic/Capric/Linoleic Triglyceride)	5.00
Miglyol 829 (Caprylic/Capric/Diglyceryl Succinate)	5.00
Dynacerein 660 (Oleyl Erucate)	5.00
Imwitor 370 (Glyceryl Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	8.00
Evening Primrose Oil	3.00
Antioxidants	q.s.
B) Methocel K 100 LV (Hydroxypropyl Methylcellulose)	0.50
Keltrol F (Xanthan Gum)	0.50
Hydroviton (Water (and) Sodium Lactate (and) Lactic Acid (and) Glycerin (and) Serine (and) Sorbitol (and) TEA-Lactate (and) Triethanolamine (and) Urea (and) Sodium Chloride (and) Lauryl Diethylene-diaminoglycine (and) Allantoin (and) Lauryl Amino-propylglycine (and) SD Alcohol 39-C)	3.00
Preservative	q.s.
Water	up to 100.00
Perfume Oil	q.s.

Preparation:

(A) is added together, heated up to 75-80 degrees C., and homogenized. (B) is stirred until homogeneous, heated to the same temperature, and emulsified into (A). The cream is then stirred until cool.

Formulation 1.1Q

Basic O/W Cream, with Citric Acid Esters

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Antioxidants	q.s.
B) Glycerin	5.00
Preservatives	q.s.
Water	up to 100.00
Perfume Oil	0.30

Preparation:

(A) is heated up to ca. 75 degrees C., and (B) is brought to the same temperature and emulsified into (A). The perfume is added at ca. degrees C.

Formulation 1.1P

SOURCE: Huls America Inc.: Suggested Formulations

Dry Skin Cream

<u>Formula:</u>	<u>% by Weight</u>
Water Phase:	
Water	q.s. to 100
Triethanolamine	0.3
Glycerine	2.0
Methylparaben	0.2
Oil Phase:	
White Protopet 1S Petrolatum (Witco)	3.0
Carnation Mineral Oil (Witco)	4.0
Cetyl Alcohol	0.5
Isopropyl Ricinoleate	3.0
Sorbitan Oleate	2.0
Stearic Acid	1.0
Naturechem GMHS (CasChem)	3.0
Naturechem EGHS (CasChem)	1.5
Naturechem OHS (CasChem)	2.0
Ceresine Wax	1.1
Laureth 23	0.3
Propylparaben	0.1
Fragrance	0.3

Procedure:

Heat both phases to 80C. Add oil phase to water phase with high speed mixing. Maintain 80C temperature while mixing for 15 minutes. Allow to cool and continue mixing to 35C; add fragrance; mix thoroughly.

Aloe Night Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	67.625
Methylparaben	0.2
Promulgen-D	2.0
Triethanolamine	0.75
B:	
Ceraphyl-368	10.0
Kessco-653	3.0
Emerson-132	6.0
Carnation Mineral Oil (Witco)	6.0
Glyceryl Monostearate	2.0
Propylparaben	0.05
Vybar-5013 (Petrolite)	2.0
C:	
Aloe-Con WG-40 (Florida Food Products)	0.375
D:	
Fragrance	q.s.

SOURCE: Witco Corp.: Suggested Formulations

Emollient Cream

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Methyl Glucose Dioleate (Glucate DO)	1.50
PEG 20 Methyl Glucose Sesquistearate (Glucamate SSE-20)	3.00
Petrolatum	8.00
Isopropyl Palmitate (Propal)	3.00
Mineral Oil	6.00
Dimethicone	0.50
Stearyl Alcohol (Stearal)	2.00
Cetyl Alcohol (Cetal)	1.00
B: Deionized Water	73.70
Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.30
C: Preservative	q.s.

Procedure:

Weigh Part B water into a suitable vessel and mix with homogenizer at 5000 rpm. Weigh and dry blend the Veegum and Rhodigel and add them slowly to the water. Mix for 20 minutes at 5000 rpm. Begin heating to 70C. Weigh the Part A ingredients into another vessel and heat to 70C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Cool to 40C and add the Part C ingredient. Continue cooling and package at 35C.

Formula from Amerchol Corp.

Hand Cream

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Dimethicone, 1000 cs. (SF-96)	2.50
Isopropyl Myristate	2.00
Stearic Acid	7.00
Lanolin	0.50
Emulsifying Wax NF (Polawax)	4.00
Sorbitan Oleate (Arlacel 80)	0.50
Polysorbate 60 (Tween 60)	2.50
B: Propylene Glycol	7.00
Deionized Water	66.00
Veegum, Magnesium Aluminum Silicate (5% Aqueous Dispersion)	8.00
C: Preservative	q.s.

Procedure:

Prepare the 5% Veegum dispersion using a homogenizer operating at 5000 rpm. Mix the dispersion for 20 minutes. Weigh the indicated amount of the dispersion into a suitable vessel. Mix with a propeller mixer at 1800 rpm and add the Part B water. Heat to 70C. Add the Propylene Glycol and mix for 5 minutes. Weigh the Part A ingredients into a suitable vessel, mix and heat to 70C. Add Part A to Part B and mix at 1800 rpm for 10 minutes at 70C. Slow the mixer to produce a slight vortex and begin cooling. At 40C, add Part C, continue cooling and package at 35C.

Formula from General Electric Co.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Emollient Eye Cream

This emollient cream is specifically designed for use around the eyes and contains Crodamol ISNP for the gentle, yet very emollient, effects that it confers to such delicate areas as the eyes, face and neck. Super Sterol Ester and Cromoist HYA are moisturizers that help keep the skin around the eyes smooth and supple. A combination of Polawax and ethylene glycol monostearate is used to emulsify the cream.

Ingredients:

	<u>Wt%</u>
Part A:	
Deionized water	84.50
Carbomer 934	0.25
Glycerin	1.50
Part B:	
Crodamol ISNP (Isostearyl Neopentanoate)	3.00
Polawax (Emulsifying Wax NF)	3.00
Super Sterol Ester (C10-30 Cholesterol/Lanosterol Esters)	2.00
Ethylene Glycol Monostearate	4.00
Part C:	
TEA 99%	0.25
Part D:	
Cromoist HYA (Hydrolyzed Protein (and) Hyaluronic Acid)	0.50
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

Procedure:

Add the Carbomer 934 of Part A to the water with mixing and heat to 65-70C. When homogeneous, add the glycerin of Part A with mixing. Combine the ingredients of Part B with mixing and heat to 65-70C. Add Part A to Part B with mixing and cool to 60C. Add Part C with mixing and cool to 40C. Add Part D with mixing and cool to desired fill temperature.

pH=6.0+0.5

Viscosity (RVT Spindle #TB, 10 rpm, 25C)=25,000cps+-10%

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-256

Enriched W/O Cream with Vitamin E Oil

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Peach Kernel Oil	10.000g
2 Almond Oil USP; Sweet	5.000g
3 AEC Macadamia Nut Oil	3.000g
4 AEC Hydroxyoctacosanyl Hydroxystearate	7.000g
5 AEC Methoxy Peg 22 Dodecylglycol Copolymer	4.000g
6 AEC PEG 45 Dodecylglycol Copolymer	3.000g
7 Vitamin E Oil	1.500g
Aqueous Phase:	
8 Water; Pure	60.770g
9 Propylene Glycol USP	5.000g
10 Magnesium Sulphate	0.080g
11 Nipaguard BPX	0.150g
Cooling Cycle:	
12 Fragrance	0.500g
Mixing Instructions:	
Heat the Oil Phase in a suitable jacketed vessel.	
Heat the Aqueous Phase in a separate vessel.	
Slowly add the hot water to the hot oils with high shear mixing and mix for five minutes. Start cooling and mix with a gate type mixer; add the perfume at about 35C and homogenise.	
This rich w/o emulsion is made with natural oils and uses Vitamin E Oil as a free radical scavenger.	
Project: JW 2382/Formula: 796*1	

Anti-Wrinkle Cream

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 AEC Hydroxyoctacosanyl Hydroxystearate	5.000g
2 AEC Methoxy Peg 22 Dodecylglycol Copolymer	2.000g
3 AEC PEG 45 Dodecylglycol Copolymer	4.000g
4 Cocoa Butter, Refined	3.000g
5 GMS NSE	3.000g
6 AEC Octyl Palmitate	5.000g
7 Caprylic/Capric Triglyceride	7.000g
Aqueous Phase:	
8 Propylene Glycol USP	5.000g
9 Nipaguard BPX	0.500g
10 Water; Pure	65.250g
Cooling Cycle:	
11 Fragrance	0.250g
Mixing Instructions:	
This is a w/o cream. The oil phase and aqueous phase are heated separately to 80C and the aqueous phase added slowly to the hot oils with high shear mixing. The product is stirred slowly until cool and then given a final homogenising mix.	
Vitamin E, Vitamin A, Sodium Hyurolonate and collagen would be suitable additives.	
Project: AEC/Formula Ref.: 1081*0	

SOURCE: A & E Connock Ltd.: Suggested Formulation

Eye Contour Cream, Type W/O, with MPC-Milk Peptide Complex

<u>Ingredients:</u>	<u>Weight%</u>
a) Dehymuls F	12.00
Vaseline, white	5.00
Softisan Gel	10.00
Paraffinum subl.	10.00
Phenonip	0.30
b) Water, distilled	46.70
Phenonip	0.30
Glycerin	5.00
Magnesium Sulfate x 7H ₂ O	0.70
c) Water, distilled	9.38
Na ₃ Citrate x 2 H ₂ O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C;
- b) Bring to approx. 70C and stir into a); Continue stirring until cream has cooled to approx. 30C.
- c) Add under stirring. Perfume, roll.

Moisturizing Cream with MPC - Milk Peptide Complex

<u>Ingredients:</u>	<u>Weight%</u>
a) Promulgen D	3.50
Paraffinum perliquidum	10.00
Glucam E-10	3.00
Cremerol HMG	1.50
Phenonip	0.30
b) Carbopol 940	0.10
Water, distilled	70.70
MPC-Milk Peptide Complex	0.50
c) Water, distilled	10.00
Phenonip	0.30
Triethanolamine	0.10

Manufacture:

- a) Melt and dissolve at approx. 75C. Allow to cool to approx. 40C
- b) Disperse at room temperature with rapid stirring.
- c) Dissolve at room temperature and stir into b).
Add mixture bc) to a) with slow stirring.
Adjust abc) to approx. pH 6.84. Homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulations

Gentle Night Repair Cream
Water in Oil Emulsion

Formulating Design and Advantages:

This product encapsulates Barley Beta an active ingredient which is anti-microbial and reduces the effects of skin aging. This cream quickly penetrates the skin leaving a soft silky feel.

Oil Phase:	<u>Weight%</u>
Emulsifying Wax (Koster Keunen)	3.10
Hexanediol Behenyl Beeswax (Koster Keunen)	3.00
Siliconyl Beeswax (Koster Keunen)	3.00
Ozokerite 164/170 (Koster Keunen)	1.00
Sunflower Oil (Alnor Oil)	8.00
Rice Bran Oil (Koster Keunen)	4.00
Foraha Oil (Koster Keunen)	1.00
Liquapar (Sutton Laboratories)	0.50
Fitoderm-Vegetal Squalane (Centerchem)	2.00
Silicone 200/100 (Dow Corning)	2.00
Glycerol Monostearate (Witco)	2.10
Isopropyl Palmitate (Inolex)	0.80
Vitamin E (BASF)	0.10
Vitamin A Palmitate (BASF)	0.10

Water Phase:	
Water (Deionized)	48.70
Methyl Paraben (Aldrich)	0.30
Sodium Borate (Amend)	0.50
Carbopol 940 2% (B.F. Goodrich)	9.60

Active Phase:	
Firming Liposome (Collaborative Laboratories)	4.00
APT (Centerchem)	3.00
Beta Glucan (Koster Keunen)	0.20

Procedure:

Heat the components of the oil phase, mix and maintain at a temperature of 82C. In a separate vessel heat the components of the water phase, mix and maintain at a temperature of 80C. Add the oil phase to the water under moderate agitation, and cool slowly while mixing. Add the Beta Glucan at a temperature less than 80C. Cool to 40C and add the Firming Liposome and APT. Cool to room temperature.

Adaptation of Formula and Its Influence on the Product:

Substitution can be made of the various plant oils depending on the formulation desired.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Intensive Anti-Wrinkle Soft Cream with AH-Acids (O/W)

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	15.00
Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	12.00
Ewalan ODE-50 (Octyldodecyl Lanolate)	2.00
B) Pronalen Fruit Acid AHA-5 (Lemon & Passion Fruit Concentrate)	7.00
Preservative	q.s.
Water	up to 100.00
C) Perfume 726096	0.30

Preparation:

(A) is heated to 75-80 degrees C. (B) is mixed together, brought to the same temperature, and emulsified into (A).

(C) is added at about 30 degrees C.

Formulation 1.1M

W/O Cream with 17% Pigments

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	16.00
Softisan 649 (Bis-Diglyceryl Polyacryladipate-1)	28.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Beeswax	6.00
Vitamin E (Tocopherol)	0.10
Zinc Oxide	16.00
Talc	1.00
B) Allantoin	0.20
d-Panthenol USP	2.00
Preservative	q.s.
Water	25.70

Preparation:

(A) is mixed until homogeneous and brought up to 75 degrees C.

(B) is brought to the same temperature and emulsified into (A).

Formulation 2.1L

SOURCE: Huls America Inc.: Suggested Formulations

Light Moisturizing Cream for Dry Skin

Ultra light weight and low cost moisturizing cream for normal/dry skin. Leaves the skin with a soft satiny feel from the Liponate NPGC-2. Lipo/DNS Completech MBAC-DS helps control the dryness of the skin.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Deionized Water	66.35
1	Methylparaben	0.25
1	Trisodium EDTA	0.05
2	Carbopol 2984 (2% sol'n)	17.50
3	Liponate NPGC-2	4.00
3	Lipomulse 165	1.50
3	Lipocol C	0.60
3	Propylparaben	0.10
3	Butylparaben	0.05
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.35
5	Deionized Water	1.00
5	Unicide U-13	0.25
6	Deionized Water	5.50
6	DNS Completech MBAC-DS	1.50

Procedure:

1. Heat Sequence #1 to 75C. Mix with overhead mixer at medium speed until all ingredients are completely into solution.
2. Heat Sequence #2 to 75C and add to Sequence #1 with medium agitation (holding temperature at 75C).
3. Mix Sequence #3 together and heat to 75C, then add to batch with medium/high agitation.
4. Premix Sequence #4 ingredients and add to batch at 70-75C. Switch to moderate sweep and cool slowly to 35C.
5. At 35C add premixed Sequence #5 ingredients to batch and cool to 25C.
6. Premix Sequence #6 together until completely into solution and then add to batch on sweep mixer.

SOURCE: Lipo Chemicals Inc.: Formulation No. 868

Light Skin-Feel Cleansing Cream
W/O

Formulating Design and Advantages:

This adaptation of a typical cold cream has been updated with new ingredients to reduce oiliness while deep cleansing of the skin is still possible, leaving the skin with a luxurious smooth and silky after feel.

Oil Phase:	Wt%
Hexanediol Behenyl Beeswax (Koster Keunen)	5.00
Siliconyl Beeswax (Koster Keunen)	3.00
Ceresine 130/135 (Koster Keunen)	7.00
Light Mineral Oil (Witco)	17.25
Isostearic Acid (Unichema)	2.00
Cetylstearyl Alcohol (Koster Keunen)	1.00
Dow 200/100	6.00
Dow 245	11.25
Emulsifying Wax (Koster Keunen)	2.00
Liquapar Oil (Sutton)	0.30

Water Phase:

Water (Deionized)	33.95
Carbopol 940 2% Solution (BF Goodrich)	10.00
Sodium Borate (Borax)	1.25

Procedure:

Add Carbopol solution to the water phase mix and heat to 75C, add borax under agitation. Mix and melt oil phase to 75C. Add oil phase to the water phase while mixing. Cool and pour into containers.

Adaptation of Formula and Its Influence on the Product:

Small changes in this formula are possible, such as the addition of small amounts of plant oils for label claims.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hand Care Cream

	Wt%
Part A: Mulsifan CB	6.0
Dow Corning 593 Fluid	2.0
Dow Corning 200-1000	2.0
Avocado oil	3.0
Paraffin oil	2.0
Part B: Water	84.0
Carbopol ETD 2001	0.15
Part C: Caustic soda (45%) approx.	0.07
Part D: Perfume, preservative, antioxidant	0.3

Mix part A, B and D each separately.

Add part B, C and D successively to part A whilst stirring.

Adjust pH to approx. pH 6.5 using caustic soda (15%) or citric acid.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B27/19

Moisturizer O/W Cream**Formulating Design and Advantages:**

This product utilizes the minor components of natural products to deliver mild anti-microbial activity, which allows the formulator to reduce the concentration of synthetic preservatives. The light yellow colored cream quickly penetrates the skin, leaving a non-greasy feel and diminishes the signs of aging by laying down a flexible barrier.

Oil Phase:	Wt%
Orange Wax (Koster Keunen)	4.5
NF Yellow Beeswax (Koster Keunen)	2.5
Isostearic Acid (Unichema)	1.0
Almond Oil (Arista)	3.0
Mineral Oil (Witco)	3.5
Glycerol Monostearate (Henkel)	6.0
Cetyl Stearyl Alcohol (P&G)	6.0
Octyl Palmitate (Unichema)	2.5

Water Phase:	
Water (Distilled)	67.8
Propylene Glycol (Dow)	1.5
Triethanolamine (Dow)	1.0
Polysorbate 60 (Specialty Industrial Prod.)	0.2
Germaben II (Sutton)	0.5

Procedure:

Add a mixed and uniform water phase to a mixed and uniform oil phase at 75C under agitation. Continue mixing till cool.

Adaptation of Formula and Its Influence on the Product:

Actives are easily incorporated into a product without altering the aesthetics. Changing the types of oils should only alter the viscosity, if maintaining similar concentrations of oils. Viscosity changes are achieved by reducing the concentration of cetyl stearyl alcohol and glycerol monostearate, by approximately 30-40%, however this may cause instability.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Moisturizing Cream w/Tritisol

<u>Formula:</u>	<u>% by Weight</u>
A:	
Polawax	10.00
Incroquat Behenyl TMS	3.00
Carnation Mineral Oil (Witco)	5.00
B:	
Deionized Water	80.00
Tritisol (Soluble Wheat Protein)	1.00
Germaben II	1.00

Procedure:

Combine A with mixing and heat to 70C. Heat B to 70C. Add B to A with good mixing. Continue mixing and cool to 45C. Add C with mixing and cool to desired fill temperature.

Makeup Remover Cleansing Creme

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	82.5
Stearamidopropyl PG Dimonium Chloride Phosphate	3.0
Cocamidopropyl PG Dimonium Chloride Phosphate	1.5
B:	
Carnation Mineral Oil (Witco)	4.5
Cetyl Alcohol	3.0
Myristyl Alcohol	3.5
Dimethicone	0.1
Propylene Glycol Stearate	1.9

Procedure:

Heat parts A and B to 60C. Add B to A with good agitation. Remove heat. When product begins to thicken, increase speed of mixer to ensure adequate agitation. Add preservative, color and fragrance as required. Stir and cool to 34C and fill.

Moisturizing Hand & Body Cream

<u>Formula:</u>	<u>% by Weight</u>
Deionized Water	82.00
Carbomer 934	0.50
Glycerine	5.00
Polyglyceryl-10 Stearate	1.50
White Fonoline Petrolatum (Witco)	2.00
Carnation Mineral Oil (Witco)	2.00
Myristyl Propionate	2.00
Glyceryl Monostearate	1.50
Stearic Acid	2.50
Triethanolamine 99%	1.00
Glydant Plus (Lonza)	q.s.

SOURCE: Witco Corp.: Suggested Formulations

Moisturizing Daycream

Sericin in this pleasant daycream protects the skin by its film forming and moisturizing properties. Due to this high-molecular protein, the emulsion is also ideal as a make-up base.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Glucate SS	1.20
2	Glucamate SSE 20	1.80
3	Stearic Acid	1.50
4	Promulgen D	1.00
5	Modulan	1.00
6	Paraffin Oil	5.00
7	Eutanol G	1.00
8	B) Water demineralized	77.30
9	Phenonip	0.50
10	Glucam E 20	4.00
11	Carbopol 1342	0.40
12	C) Triethanolamine	qs. pH 6
13	D) Sericin	5.00
14	Fragrance/Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), with item 12 adjust the pH to 6.0, homogenize and cool to 30C.

Then add items 13 and 14, one after another.

SOURCE: Pentapharm Ltd.: Application No. A020.A/10.93

Moisturizing Day Cream (Sericin)

Sericin in this pleasant day cream protects the skin by its film forming and moisturizing properties. Due to this high molecular weight protein, the emulsion is also ideal as a make-up base.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Glucate SS	1.20
2	Glucamate SSE 20	1.80
3	Stearic Acid	1.50
4	Promulgen D	1.00
5	Modulan	1.00
6	Paraffin Oil	5.00
7	Eutanol G	1.00
8	B) Deionized Water	77.30
9	Phenonip	0.50
10	Glucam E 20	4.00
11	Carbopol 1342	0.40
12	C) Triethanolamine, q.s. pH 6.0	
13	D) Sericin	5.00
14	Fragrance-Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), with item 12 adjust the pH to 6.0, homogenize and cool to 30C. Then add items 13 and 14 one after the other.

SOURCE: Pentapharm Ltd.: Application No. A 020.A/10.93

Incroquat Behenyl TMS Cream

This basic formulation shows how Incroquat Behenyl TMS can form a stable and elegant, yet simple, emulsion. The soft/powdery feel it confers on the skin is due to the conditioning effects of the behenyl quat.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	3.00
Crodamol ISNP (Isostearyl Neopentanoate)	5.00
Dimethicone 200 (200cps)	1.00
Volpo S-2 (Steareth-2)	0.10
Volpo S-10 (Steareth-10)	0.50
Petrolatum	2.00
Part B:	
Deionized Water	79.40
Part C:	
Deionized Water	5.00
Hydrotritricum WAA (Wheat Amino Acids)	1.00
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Crodasome CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.00
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	1.00
pH=5.0+-0.5	
Viscosity=16,000cps+-10% (RVT Spindle #TC, 10 rpm, 25C)	

SOURCE: Croda Inc.: Formulation SC-269

Moisturizing Skin Cream

An elegant and rich moisturizing cream based on the NMF (Natural Moisturizing Factor) concept of ProdeW 100.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	59.60
Veegum HV, Magnesium Aluminum Silicate	1.00
Triethanolamine, 99%	2.40
Rhodigel, Xanthan Gum	0.20
B: Squalane (Fitoderm)	6.00
Cetyl Palmitate	4.00
Dioctyl Maleate	8.00
Propylene Glycol Isostearate	4.00
Pentaerythrityl Tetrapelargonate	4.00
Dimethicone (100 cs.)	0.80
Hydrogenated Soy Glyceride	1.00
Stearyl Alcohol	1.00
Stearic Acid	5.00
C: Sorbitol (and) Sodium Lactate (and) Proline (and)	
Sodium PCA (and) Hydrolyzed Collagen (ProdeW 100)	3.00
Preservative	q.s.

Procedure:

Weigh the Part A water into a suitable vessel and mix with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum HV and Rhodigel, add them slowly to the water and continue mixing for 20 minutes. Begin heating to 65C. Add the remaining Part A ingredients and continue mixing at 5000 rpm. Weigh the Part B ingredients into another vessel. Mix and heat to 70C. Add Part B to Part A and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Cool while mixing to 35C and add the Part C ingredients in order, mixing each for 5 minutes. Continue cooling and package at 25-30C.

Moisturizing Cream

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Stearic Acid	2.00
Cetyl Alcohol	2.00
Isopropyl Myristate	2.00
Lanolin Oil (Lantrol 1673)	10.00
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	3.00
B: Veegum, Magnesium Aluminum Silicate	1.50
Deionized Water	74.50
C: Glycerin	4.00
Triethanolamine, 99%	1.00
D: Preservative	q.s.

Procedure:

Weigh the Part B water into a suitable vessel. Mix with an homogenizer operating at 5000 rpm and begin heating to 70C. Slowly add the Veegum and mix for 20 minutes. Add the Part C ingredients in the order shown, mixing each for 3 minutes at 5000 rpm. Weigh the Part A ingredients into another vessel. Mix and heat to 70C. Add Part A to Part B at 70C and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer, adjust the speed to produce a small vortex and begin cooling. At 40C, add Part D and package at 35C. *As received basis
SOURCE: R.T. Vanderbilt Co., Inc.: Formulas: Centerchem/ICI America

Multi Purpose Cream

This white, creamy emulsion has a good cosmetic texture and is suitable for different applications. Phytaluronate adds a pleasant slip to the formula, whereas Fitobroside (penetration enhancer) and Revitalin-BT exert their actions in deeper layers of the skin.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Glucate SS	1.20
2	Glucamate SSE 20	1.80
3	Stearic acid	1.50
4	Promulgen D	1.00
5	Modulan	2.00
6	Mineral oil	4.00
7	Eutanol G	2.00
8	B) Water demineralized	71.60
9	Imidazolidinyl urea	0.20
10	Phenonip	0.30
11	Glucam E 20	4.00
12	Phytaluronate	3.00
13	Revitalin-BT	3.00
14	Carbopol 1342	0.50
15	C) Triethanolamine	0.60
16	D) Fitobroside	3.00
17	E) Fragrance/Black Dragon II 0/232511	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), with phase C) adjust the pH to 6.0, homogenize and cool to 30C.

Then add phases D) and E) one after another and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 028.B/07.93

Neck Firming Cream**Formulating Design and Advantages:**

The neck is the most neglected part of the body and shows the first visible signs of aging. This product delivers actives to that area in a cost effective product which has emollient and moisturizing properties that firms tiny lines. Continued use helps promote the look of firm, resilient, soft, youthful-looking skin.

Phase A:	Wt%
Deodorized Orange Wax (Koster Keunen)	3.0
Emulsifying Wax NF (Koster Keunen)	5.0
Shea Butter (Sederma)	3.0
Stearic Acid (Unichema)	3.0
Mineral Oil (Witco)	5.0
Isopropyl Palmitate (Unichema)	5.0
Glycerol Monostearate (Koster Keunen)	1.5
Squalane (Barnet)	3.0
Phytoglycolipid (Barnet)	2.0
Cetyl Stearyl Alcohol (P&G)	0.5

Phase B:	
Water (Distilled)	57.9
Carbopol 940 (B.F. Goodrich)	0.2
Triethanolamine (Dow)	0.4
Glycerin (Unichema)	2.0
Aloe Vera Gel (Active Organics)	0.5
Propylene Glycol (Dow)	2.0
Germaben II (Sutton)	1.0

Phase C:	
Elastosol Animal Collagen & Elastin (Croda)	5.0

Procedure:

Weigh out materials for Phase A, heat to 80C and mix till homogeneous. Heat Phase B to 75C while mixing. Add Phase A to Phase B under rapid agitation. Cool to 45C and add Phase C. Continue mixing till 35 to 40C.

Adaptation of Formula and Its Influence on the Product:

Sunscreens are easily incorporated into a formula of this type. By reducing the concentration of water and/or the oils, Escalol 507 (Van Dyk) can be substituted at approximately 5% to produce an SPF of 6-8.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Night Cream

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Deionized Water	43.45
A	Sodium Borate	0.70
A	Glycerin	2.00
A	Xanthan Gum	0.30
A	Tetrasodium EDTA	0.10
B	Cetearyl Alcohol	2.00
B	Sorbitan Sesquioleate	2.00
B	Glyceryl Monostearate	5.00
B	Oils of Aloha Macadamia Nut Oil	8.00
B	Vitamin E Acetate	0.20
B	Beeswax	12.00
B	Mineral Oil	15.00
B	Octyl Palmitate	8.00
C	Germaben II	1.00
D	Fragrance	0.25

Manufacturing Procedure:

Heat Phase A to 75C.

Heat Phase B to 75C. Add Phase B to Phase A. Cool to 40C.

Add remaining phases. Homogenize.

This formula is meant to be left on the skin and to have a heavier film so that it lasts all night. This is a water in oil emulsion and the principal emulsifiers are Sorbitan Sesquioleate and a combination of sodium borate and beeswax. The combination of oils gives proper weight and feel. Could be all Macadamia Nut Oil, but it might be expensive. This formulation can also be used as a makeup remover for lipstick and eye makeup.

SOURCE: Oils of Aloha: Suggested Formulation**Cold Cream**

<u>Formula:</u>	<u>% by Weight</u>
Polysynlane (Polyester)	32.0
Carnation Mineral Oil (Witco)	4.0
Paraffin Wax	4.0
I.P.M.	8.0
Beeswax	3.0
Lanolin	8.0
Propylene Glycol	4.0
Potassium Hydroxide	0.3
Arlacel 40	2.5
P.O.E. Sorbitol Beeswax	1.0
Stearic Acid	1.5
Perfume, Preservatives	q.s.
Water, to	100.0

SOURCE: Witco Corp.: Suggested Formulation

Night Creme

	<u>Wt%</u>
Mineral Oil	8.00
Ritachol	4.00
Ritachol 1000	8.00
Pationic SSL	6.00
Rita EGMS	5.00
Pationic ISL	2.00
Ritawax	1.00
Propylparaben	0.10
Distilled Water	60.70
Propylene Glycol	5.00
Methylparaben	0.20

pH: 5.2

Viscosity: 135,000 cps

Stabilities:

4F: No change after 3 cycles

40F: V. sl. separation after 1 week

110F: V. sl. separation after 24 hrs.

Formulation 111-204

Night Creme

	<u>Wt%</u>
Mineral Oil	8.00
Ritachol	4.00
Ritachol 1000	8.00
Pationic SSL	6.00
Rita EGMS	5.00
Pationic ISL	2.00
Ritawax	1.00
Propylparaben	0.10
Distilled Water	58.70
Propylene Glycol	5.00
Methylparaben	0.20
Ritavena 5	2.00

pH: 5.0

Viscosity: 175,000 cps

Stabilities:

4F: No change after 3 cycles

40F: No change after 6 weeks

110F: Sl. separation after 24 hrs.

Formulation 111-205

SOURCE: R.I.T.A. Corp.: Ritavena 5: Suggested Formulations

Night Repair Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Natural Beeswax	7.30
2. Ozokerite	4.30
3. Light Mineral Oil	19.50
4. Rita IPM (Isopropyl Myristate)	2.30
5. Rita GMS (Glyceryl Stearate)	2.10
6. Ritox 59 (PEG-100 Stearate)	1.50
7. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	1.20
8. Ritacet-20 (Ceteareth-20)	1.00
9. Isostearic Acid	0.80
10. Tocopherol	0.10
11. Retinyl Palmitate	0.10
12. Distilled/Deionized Water	53.25
13. Diazolidinyl Urea	1.00
14. Sodium Borate	0.40
15. Acritamer 940 (Carbomer)	0.15
16. Raffermine (Hydrolyzed Soy Flour)	2.00
17. Tensine (Wheat Protein)	3.00

Compounding Procedure:

Disperse item 15 in item 12 while heating to 70C. Combine items 1-11 and heat to 70C. Add to water phase. Add items 13 and 14 and mix while cooling. At 40C add items 16 and 17.

Ref. No. 122-17C

Cleansing Cream

A glossy water-in-oil cleansing cream containing Clariskin with the properties of attenuating skin brown spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritahydrox (Hydroxylated Lanolin)	3.00
2. Ritasol (Isopropyl Lanolate)	2.00
3. Natural Beeswax	10.00
4. Mineral Oil (Drakeol-9)	44.00
5. Rita GMS (Glyceryl Stearate)	2.00
6. Ozokerite	5.00
7. Distilled/Deionized Water	23.60
8. Biocare Polymer HA-24	3.80
9. Borax (99.5%)	0.60
10. Clariskin (Yeast Extract)	5.00
11. Germaben IIE	1.00
12. Perfume	q.s.

Compounding Procedure:

Add item 8 to item 7 at 25C. Mix until thoroughly dispersed. Heat to 45-50C if necessary. When dispersed, add item 9 and heat to 80C. Mix items 1-6 and heat to 80C. Add water phase to oil phase with agitation. Add item 11 at 75C. Continue to mix until mixture reaches 35C, then add items 10 and 11.

Ref. No. 122-79B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Night Repair Cream

<u>Formula:</u>	<u>% by Weight</u>
Octyldimethyl Paba	3
Finsolve	2
Carnation Mineral Oil (Witco)	2
White Protopet 1S (Witco)	3
Stearic Acid	2
Acetylated-Lanolin	3
Amerchol-L-101	3
Generol-122	2
Generol-122E-10	3
Lexemul	8
Benzyle, Alcohol	3
Ceraphyl-65	2
Glycerin	5
Selastin EL-10 (Secol)	10
Water	q.s.
Collagen Secolan BA 1-1% Solution (Secol)	5
Na-Hyaluronate Seluron 1% Solution (Secol)	3
Germall 115	0.25
Fragrance	As Desired

Facial Cleansing Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Gelwhite GP	2.0
Water	31.0
Sorbitol (70%)	5.0
B:	
Polestar 400A (ECC America)	20.0
C:	
Carnation Mineral Oil (Witco)	17.0
Solulan 16	3.0
Tween 80	1.0
Arlacel 186	3.0
White Protopet 1S	10.0
Synthetic Beeswax	5.0
Preservatives	q.s.

Procedure:

Slowly add Gelwhite to the water while mixing at maximum shear. Add glycerine and Sorbitol at moderate speed until smooth. Add B to A with slow mixing. Combine C and heat to 65C. Heat A/B to 70C and slowly add to C. Continue mixing until temp. cools to 30C. Add desired preservatives and mix until smooth and uniform.

SOURCE: Witco Corp.: Suggested Formulations

Night Time Moisturizing Cream

Rich emulsion containing Ritasil 190 as a lubricant.

<u>Ingredients:</u>	<u>%W/W</u>
1. Mineral Oil (Bristol 9 NF)	10.00
2. Rita IPP (Isopropyl Palmitate)	2.00
3. Stearic Acid	4.00
4. Ritox 52 (PEG-40 Stearate)	1.00
5. Ritasil 190 (Dimethicone Copolyol)	1.00
6. Ritalan (Lanolin Oil)	0.50
7. Rita GMS (Glyceryl Stearate)	3.00
8. Distilled/Deionized Water	74.75
9. Triethanolamine @ 99%	1.30
10. Dermacryl-79 (Acrylates/Octylpropenamide Copolymer)	1.00
11. Acritamer 934 (Carbomer 934)	0.25
12. Germaben 11E	1.00
13. Fragrance	0.20

Compounding Procedure:

Heat water and Triethanolamine 99% to 80C. Slowly sift item 10 and mix until completely dissolved. Sift item 11 slowly. Combine items 1-7 in a separate vessel, heat to 80C and mix until clear. Add items 1-7 to items 8-10 and mix for 30 minutes at 80C. Cool to 40C, then add items 12 and 13.

Ref. No. 121-96

Cleansing Cream

A cleansing cream with Raffermine to promote skin firmness and reduce skin elasticity with emollience from Ritachol and humectancy from glycerine.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	3.00
2. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00
3. Mineral Oil (Light)	20.00
4. Ritachol 2000 (R.I.T.A. Blend)	3.00
5. Distilled/Deionized Water	62.00
6. Glycerine	5.00
7. Raffermine (Hydrolyzed Soy Flour)	2.00
8. Glydant	1.00
9. Fragrance	q.s.

Compounding Procedure:

Combine items 1-4 and heat to 70C. Combine items 5 and 6 and heat to 70C with mixing. Add oil to water with mixing. Cool to 40C and add items 7-9.

Ref. No. 120-205A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Nighttime Moisturizing Cream

A glossy white night cream containing a collagen fiber restructuring booster: Raffermin. This elegant cream also contains Rita IPP and Ritalan as emollients.

<u>Ingredients:</u>	<u>%W/W</u>
1. Mineral Oil	10.00
2. Rita IPP (Isopropyl Palmitate)	2.00
3. Stearic Acid	4.00
4. Rita GMS (Glyceryl Stearate)	3.00
5. Ritox 52 (PEG-40 Stearate)	1.00
6. Ritasil 190 (Dimethicone Copolyol)	1.00
7. Ritalan (Lanolin Oil)	0.50
8. Distilled/Deionized Water	71.95
9. Triethanolamine (99%)	1.30
10. Acrylates/t-Octylpropenamide Copolymer	1.00
11. Acritamer 934 (Carbomer)	0.25
12. Germaben IIE	1.00
13. Fragrance	q.s.
14. Raffermin (Hydrolyzed Soy Flour)	3.00

Compounding Procedure:

Combine items 8 and 9 and heat to 80C. Slowly add item 10 and mix until completely dissolved. Then slowly add Acritamer and mix until dissolved. Combine items 1-7 and heat to 80C and mix until clear. Add to water and mix for 30 minutes at 80C. Cool to 40C and add items 12-14.

Ref. No. 122-3A

Under Make-Up Cream for Normal Skin

An elegant, non-greasy, protective day cream for under make-up use, Tensine smoothes the skin and helps make-up stay on.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	8.00
2. Cetareth-15	3.00
3. Rita IPP (Isopropyl Palmitate)	5.00
4. Ritachol 2000 (R.I.T.A. Blend)	5.00
5. Distilled/Deionized Water	63.80
6. Propylene Glycol	5.00
7. Methylparaben	0.15
8. Propylparaben	0.05
9. Borage Oil	3.00
10. Fragrance	1.00
11. Tensine (Wheat Protein)	6.00

Compounding Procedure:

Heat items 1-4 to 70C. Heat items 5-8 to 70C. Add oil to water. Cool to 40C. Add items 9-11.

Ref. No. 122-13

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Oil-Free Exfoliating Cream**Formulating Design and Advantages:**

The use of natural exfoliating agent (easily dispersed) in this cream formula gives a marvelous, non-irritating, abrasive quality for the removal of spent surface cells. This will renew and revitalize worn and damaged skin, leaving a barrier which contains natural anti-oxidants inherent in the beeswax and deodorized orange wax.

Phase A:	Wt%
Deodorized Orange Wax (Koster Keunen)	3.0
Hydroxy Polyester (Koster Keunen)	2.0
Isostearic Acid (Unichema)	3.0
Dimethicone 200/100 (Dow)	7.5
Glycerol Monostearate (Koster Keunen)	1.5
Cetyl Stearyl Alcohol (P & G)	1.0
Octyl Palmitate (Unichema)	3.0

Phase B:	
Water (Deionized)	64.35
Propylene Glycol (Dow)	2.5
Triethanolamine (Dow)	1.0
Polysorbate 60 (Specialty Industrial Prod.)	0.2
Carbopol 940 (BFGoodrich)	0.2
Methyl Paraben (Aldrich)	0.75

Phase C:	
Microgranulated Carnauba, 20-60 mesh (Koster Keunen)	10.0

Procedure:

Add a mixed and uniform Phase A to a mixed and uniform Phase B at 75C under agitation. Continue mixing and cool to 50C. Add Phase C and mix until homogeneous.

Adaptation of Formula and Its Influence on the Product:

Viscosity of this product can easily be altered by substituting stearic acid for isostearic acid, to accomodate your preferred container. For sensitive skin, reduce the orange wax, and replace with Kester Wax 62 and Ceresin 130/135. A low viscosity will allow this product to be packaged in an open jar. The formulating advantages remain un-altered by the changes in viscosity.

SOURCE: Koster Keunen, Inc: A Guide to Natural Formulating

O/W-Cream

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGS	5.00
Hostacerin DGL	0.50
Isopropyl palmitate	8.00
Almond oil	4.00
Jojoba oil	2.00
Wheat germ oil	5.00
Sunflower oil	4.00
Antioxidant	q.s.
B Carbopol 980	0.30
C Aquamollin BC pdr.h.c.	0.10
Citric acid (10%)	0.25
Caustic soda solution (10%)	1.20
Water	69.25
Preservative	q.s.
D Fragrance	0.40

Procedure:

- 1 Melt A at ca. 70C, then add B.
 - 2 Heat C to ca. 70C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 At ca. 35C add D to 3.
 - 5 Homogenize the emulsion.
- Formula A VI/1852

O/W-Cream

"contains no ethylene oxide"

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGMS	5.00
Mineral oil, low viscosity	10.00
Eutanol G	7.00
Almond oil	6.00
Antioxidant	q.s.
B Carbopol 980	0.50
C Hostapon KCG	0.40
Caustic soda solution (10%)	2.00
Water	68.70
Preservative	q.s.
D Fragrance	0.40

Procedure:

- 1 Melt A at ca. 80C, then add B.
 2. Heat C to ca. 80C.
 - 3 Stir 2 into 1 and stir until cool.
 4. At ca. 35C add D to 3.
 5. Homogenize the emulsion.
- Formula A VI/1751

O/W-Cream

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGMS	4.00
	Hostaphat KML	2.00
	Mineral oil, low viscosity	8.00
	Eutanol G	6.00
	Almond oil	4.00
	Isopropyl palmitate	4.00
	Antioxidant	q.s.
B	Carbopol 980	0.50
C	Caustic soda solution (10%)	2.70
	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Water	68.15
	Preservative	q.s.
D	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 80C, then add B.
 - 2 Heat C to ca. 80C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 At ca. 35C add D to 3.
 - 5 Homogenize the emulsion.
- Formula A VI/1550

O/W-Cream

"Contains no ethylene oxide",
manufacturing at room temperature possible

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGI	2.00
	Mineral oil, low viscosity	8.00
	Isopropyl palmitate	4.00
	Eutanol G	4.00
B	Carbopol 980	0.70
C	Hostapon KCG	0.80
	Caustic soda solution (10%)	2.80
	Water	77.30
	Preservative	q.s.
D	Fragrance	0.40

Procedure:

1. Stir B into A, then add C and stir well.
 2. Stir D into 1.
 3. Finally homogenize the emulsion.
- Formula A VI/1752

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Phytodermin

Phytodermin contains solubilized high molecular weight constituents of the plant matrix from soybeans in natural distribution: hydroxyproline-rich glycoproteins as extensins, arabinogalactans as proteoglycan equivalents and proline-rich glycoproteins. The specific, most gentle production procedure applied in the case of Phytodermin maintains, contrary to conventional soya hydrolysates, the native character of the matrix components contained. In in vivo tests, Phytodermin has proved to be an efficient alternative to the classic animal derived matrix composition.

Regenerative Cream, Type W/O, with Phytodermin

<u>Ingredients:</u>	<u>Weight%</u>
a) Dehymuls PGPH	7.00
Lameform TGI	3.00
Beeswax	5.00
Isopropyl myristate	10.00
Myritol 318	5.00
Cetiol 868	5.00
Phenonip	0.30
OxyneX LM	0.10
b) Water, distilled	49.30
Phenonip	0.30
Karion F liquid	5.00
c) Phytodermin	10.00

Manufacture:

- a) Melt and bring to approx. 75C;
- b) Heat to approx. 75C and stir into a).
Continue stirring until cooled to approx. 30C;
- c) Stir in.
Perfume, roll.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulation

O/W Basic Cream, Without Paraffin

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	35.00
Miglyol 812 (Caprylic/Capric Triglyceride)	3.00
Cetyl Alcohol	2.00
B) Preservative	q.s.
Water	60.00

This basic cream can be used to incorporate nonionic active ingredients.

Preparation:

(A) is heated to ca. 65 degrees C. (B) is heated to the same temperature and then emulsified into (A). The cream is then constantly stirred until cool.

SOURCE: Huls America Inc.: Formulation 1.1N

Protective Cream with Cromoist CM Glucan

Due to the incorporation of Cromoist CM Glucan, this cream can protect skin from environmental insult and help it to function better. Cromoist CM Glucan is a unique protective and therapeutic agent that works by stimulating the skin's own defense mechanisms, resulting in protective effects that enhance skin function and increase the skin's resistance to UVA-induced oxidative stress. Crodafos CES is a substantive phosphate-based emulsifying system that enhances the delivery of the other ingredients and improves the application properties of the cream.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.0
Corona PNL (Lanolin)	1.0
Part B:	
Deionized Water	69.8
Triethanolamine (98%)	0.2
Part C:	
Deionized Water	5.0
Hydrotritricum WAA (Wheat Amino Acids)	1.0
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.0
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	5.0
Part E:	
Deionized Water	5.0
DL Panthenol	2.0

pH=4.5+-0.5

Viscosity=20,000 cps+-10% (RVT Spindle #TC @ 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add ingredients of Part A to B with mixing and cool to 50C. Add ingredients of Part C, D and E with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-265

Rain Forest Cream

This formula produces a relatively viscous, shiny white cream and features Cronatural Cohune Oil, an emollient oil harvested out of the rain forest, and Crodafos CES. The use of Crodafos CES enhances the formulation's application properties significantly, allowing the cream to rub in effortlessly without any indication of drag. Crodafos CES confers a pleasing emollience, providing the skin with a conditioned afterfeel.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Cronatural Cohune Oil (Cohune Oil)	10.00
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.50
Part B:	
Deionized Water	79.00
Carbomer 2984	0.20
Glycerin	2.00
Na2EDTA	0.05
Part C:	
TEA 99%	1.25
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

Viscosity=22,000+-10% (RVT Spindle B, 10rpm @ 25C)
pH=7.0+-0.5

Procedure:

Dissolve the Na2EDTA of Part B in deionized water. Disperse Carbomer 2984 into water of Part B. When fully hydrated, add glycerin with mixing and heat to 70-75C. Combine ingredients of Part A with mixing and heat to 70-75C. Add Part A to Part B with mixing. Add C to A/B with mixing and cool to 40C. Add Part D with mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-254

Rejuvenating AHA Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>Weight%</u>
Oil Phase:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Hydrogenated Castor Oil	0.50
Microcrystalline Wax	0.50
Caprylic/Capric Triglycerides (Tegosoft CT)	3.00
Octyl Stearate (Tegosoft OS)	5.00
Isopropyl Myristate (Tegosoft M)	4.00
Isopropyl Palmitate (Tegosoft P)	1.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Cyclomethicone	4.00
Water Phase:	
Water	70.75
NaCl	0.80
Propylene Glycol	2.00
Sodium Citrate	0.60
Malic Acid Granular	1.60
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to 80-85C to melt and disperse the waxes. When dispersed, cool and maintain a temperature of 45-50C.
2. Mix water, propylene glycol and sodium chloride together dissolving sodium chloride. Add and mix the remaining ingredients of the water phase.
3. Adjust the pH of the water phase to 4.0-4.5 if necessary.
4. With slow lightnin' mixing, slowly stream the water phase into the oil phase.
5. With sweep agitation, cool to 35C.
6. Add color, fragrance and preservatives.
7. Homogenize with a roto-stator homogenizer.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Skin Care Cream**Formulating Design and Advantages:**

This product imparts good skin feel and has a high quality appearance, though the production is cost effective. There are also barrier and moisturizing properties which are highly effective hydration system for all skin types. The formula also will help reduce transepidermal water loss.

Oil Phase:	Wt%
Cetyl Stearyl Alcohol 1618 (P&G)	4.50
NF White Beeswax (Koster Keunen)	2.50
Isopropyl Palmitate (Unichema)	3.00
Light Mineral Oil (Witco)	5.00
Propylene glycol Dioctanate (Inolex)	1.50
Stearic Acid (Unichema)	0.50
Coconut Oil (CocoChem)	1.25
Propyl Paraben (Sutton)	0.20

Water Phase:	
Water (Distilled)	74.25
Glycerine (UniChema)	5.50
Carboxymethyl Cellulose (CMC, Hercules)	0.30
Carbopol 940 (BFGoodrich)	0.60
Sodium Borate (Borax)	0.40
Triethanolamine (Dow)	0.30
Methyl Paraben (Sutton)	0.20

Procedure:

Add to the water phase under agitation, in order; CMC until everything is dissolved then propyl paraben while mixing. Then add Carbopol, mix till homogeneous making sure there is no agglomeration. Add the remainder of the water phase components, mix and heat to 75C. Add all the oil phase components, heat till 75C and mix. Add slowly the oil phase to the water phase under agitation maintaining a temperature of 75C. When the oil phase is added, cool and pour into container.

Adaptation of Formula and Its Influence on the Product:

By reducing the concentrations of mineral oil by 2.0%, propylene glycol dioctanate by 0.5% and the addition of 2.5% Escalol 507 (Van Dyk) the cream will take on an SPF of 6-8. The product has the same appearance, skin feel and stability as the above formula. Fragrances can also be added without affecting its texture.

SOURCE: Koster Keunen, Inc.; A Guide to Natural Formulating

Skin Cream**Formulating Design and Advantages:**

The emulsifying wax adds to the stability and richness of the cream.

Oil Phase:	<u>Wt%</u>
Emulsifying Wax NF (Koster Keunen)	12.0
Sunflower Oil (Alnoroil)	6.0
Olive Oil, Unsaponifiable (Collaborative Labs)	3.0
Isopropyl Myristate (Unichema)	2.0
Liquapar (Sutton)	1.0

Water Phase:	
Water (Deionized)	74.0
Glycerine (Unichema)	2.0

Procedure:

Mix and heat oil phase to 75C. Mix and heat water phase to 75C. Add oil phase to water phase. Cool.

Adaptation of Formula and Its Influence on the Product:

Other actives may be substituted for the olive oil.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hand Care Cream

	<u>Wt%</u>
Part A: Setacin F Spezial Paste	58.0
Imwitor 960	10.0
Miglyol 840	5.0
Part B: Carboxymethyl Cellulose	0.5
Water	25.5
Part C: Lactic acid	0.3
Perfume, preservative	0.7

Mix part A, B and C each separately.

Add part B and C successively to part A whilst stirring.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 27/14

Skin Lightening Night Cream Against Age Spots

This agreeable, rich night cream contains Melfade, which has a bleaching activity. Pentavitin provides the skin with moisture and regenerates the skin.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Cremophor A6	2.50
2	Cremophor A25	2.50
3	Cutina GMS	4.00
4	Lanette O	3.00
5	Stearic Acid	1.00
6	Paraffin Oil	10.00
7	Cetiol SN	5.00
8	Vaseline white	3.00
9	Abil-350	4.00
10	B) Deionized Water	51.00
11	Imidazolidinyl Urea	0.20
12	Phenonip	0.50
13	Glycerin	3.00
14	Pentavitin	5.00
15	Melfade	5.00
16	C) Fragrance: Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 032.B/01.96

Cleansing Cream with Salicylic Acid

<u>Ingredients:</u>	<u>Weight%</u>
A. Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	18.00
Imwitor 370 (Glyceryl Stearate Citrate)	10.00
Miglyol 812 (Caprylic/Capric Triglyceride)	15.00
Cetyl Alcohol	2.00
Salicylic Acid	0.50
B. Preservative	q.s.
Water	up to 100.00

Preparation:

Ingredients of "A" are melted to about 75 degrees C. "B" is heated to the same temperature and is emulsified into "A". Stir until cold.

SOURCE: Huls America Inc.: Formulation 1.1L

Skin Rejuvenating Cream

A synergistic combination of Veegum Plus and Rhodigel Xanthan Gum is used to thicken and stabilize this oil-in-water emulsion. Approximately 5% Glycolic Acid, an alpha-hydroxy acid, is incorporated into the formula to provide its well-known skin rejuvenating function.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum Plus, Magnesium Aluminum Silicate	0.95
Deionized Water	63.67
Rhodigel, Xanthan Gum	0.29
B: Glycerin	4.75
C: Triethanolamine, 99%	0.71
D: Cetyl Alcohol	2.85
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	4.28
Stearic Acid	1.43
Isopropyl Palmitate	4.28
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.28
Dimethicone (350 cs.)	1.43
E: Preservative	0.95
Glycolic Acid (67% Soln.)	7.13
Sodium Hydroxide (50% Soln.)	3.00

Procedure:

Dry blend the Veegum Plus and Rhodigel and slowly add the mixture to room temperature water while stirring with a propeller mixer at 1800 rpm. Continue mixing for 30 minutes. Add Part B and mix 5 minutes. Heat Parts A+B to 50-55C and add Part C. Mix 3 minutes. Heat the water phase to 75C. Mix and heat Part D to 75-80C. Add Part D to parts A+B+C while stirring at 1800 rpm for 10 minutes. Maintain temperature at 75C. Begin cooling while stirring. At 40C, add Part E in the order shown, mixing each until uniform. Continue cooling and slow the stirrer to 900 rpm. Check the pH and adjust, if necessary, to 4.2-4.5. Package at 35-38C.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 462

Skin Therapy Creme

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Phospholipid GLA	1.50
Phospholipid SV	2.20
Glycerin	2.00
Titanium Dioxide	0.50
Germaben IIE	0.40
AMP-95	0.40
Water	80.00
Phase B:	
Cetyl Alcohol	2.00
Steareth-2	2.00
Monafax 160	1.00
Squalane	0.80
Octyl Stearate	4.00
Isopropyl Palmitate	2.40
Dow Corning Fluid 200/350 cs.	0.80

Procedure:

Add Phase B to Phase A very slowly; keep viscosity low or it will thicken beyond use.

SOURCE: Angus Chemical Co.: Product Formulary: Formulation
PF-0347 suggested by Mona Industries

Cream, Type O/W, with Protectan*

	<u>% by Weight</u>
a) Cutina MD	4.00
Cutina CP	4.00
Eumulgin B1	1.00
Eumulgin B2	1.00
Cetiol B	5.00
Phenonip	0.30
b) Water, distilled	70.40
Phenonip	0.30
Carbopol 940	0.50
Triethanolamine	0.50
Glycerin	3.00
c) Protectan	10.00

Manufacture:

Melt a) and bring to approx. 70C. Bring b) to approx. 70C and stir into a). Continue stirring until cooled to approx. 30C.

Add c) with stirring. Perfume, homogenize.

*Protectan is a Lactococcus lactis lysate. High antioxidative potential.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formula

Ultra Skin Treatment Cream

Veegum Ultra is an ideal candidate for thickening and stabilizing this acidic oil-in-water emulsion because it yields a low pH when dispersed in water. When used in combination with Rhodigel Xanthan Gum, synergistic thickening and stabilization is achieved. Approximately 5% Glycolic Acid is added to provide its well-known skin rejuvenating function.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum Ultra, Magnesium Aluminum Silicate	1.43
Deionized Water	63.51
Rhodigel, Xanthan Gum	0.29
B: Glycerin	4.76
C: Triethanolamine, 99%	0.71
D: Cetyl Alcohol	2.85
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	4.28
Stearic Acid	1.43
Isopropyl Palmitate	4.28
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.28
Dimethicone (350 cs.)	1.43
E: Preservative	0.95
Glycolic Acid (67% Soln.)	7.14
Sodium Hydroxide (50% Soln.)	2.66

Procedure:

Dry blend the Veegum Ultra and Rhodigel. Slowly add the mixture to room temperature water while stirring with a propeller mixer at 1800 rpm. Continue mixing for 30 minutes. Add Part B and mix 5 minutes. Heat Parts A+B to 50-55C and add Part C. Mix 3 minutes. Heat the water phase to 75C. Mix and heat the Part D ingredients to 75-80C. Add Part D to Parts A+B+C. Stir at 1800 rpm for 10 minutes. Maintain temperature at 75C. Begin cooling while stirring. At 40C, add the Part E ingredients in the order shown, mixing each until uniform. Continue cooling and slow the mixer to 900 rpm. Check the pH and adjust, if necessary, to 3.5-4.0. Package at 35-38C.

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 463

W/O Basic Cream for Dry Skin, with Evening Primrose Oil

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	4.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Dynacerein 660 (Oleyl Erucate)	6.00
Softisan Gel (Bis-Diglyceryl Polyacyladipate-2 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	3.00
White Beeswax	2.00
Lunacera M (Microcrystalline Wax)	2.00
Mineral Oil	6.00
Evening Primrose Oil	5.00
B) Preservative	q.s.
Water	65.00
Perfume Oil	q.s.

Preparation:

(A) heated up to ca. degrees C. until homogeneous. (B) is heated to the same temperature and emulsified into (A). The perfume oil can be added below 30 degrees C. The emulsion must be stirred until cool.

Formulation 1.2L

Peeling Cream

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	10.00
Imwitor 900 (Glyceryl Stearate)	10.00
Miglyol 812 (Caprylic/Capric Triglyceride)	15.00
Miglyol 840 (Propylene Glycol Dicaprylate/ Dicaprate)	3.00
Dynacerein 660 (Oleyl Erucate)	2.00
Marlipal 1618/25 (Ceteareth-25)	1.80
Cremophor A6 (Ceteareth-6 (and) Stearyl Alcohol)	1.20
B) Ampholyt JB 130/K (Cocamidopropyl Betaine)	5.00
Allantoin	0.20
Preservative	q.s.
Water	up to 100.00
C) Fragrance	q.s.
Almond Meal (or 1.5% Sea Sand)	3.00

Preparation:

(A) is melted at about 75 degrees C. (B) is brought to the same temperature and emulsified into (A). Almond Meal or Sea Sand and fragrance is added at about 35 degrees C.

Formulation 1.1S

SOURCE: Huls America Inc.: Suggested Formulations

W/O Cream with Almond Oil and Shea Butter

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan Gel (Bis-Diglyceryl Polyacryladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	10.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	10.00
Dynacerein 660 (Oleyl Erucate)	2.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Almond Oil	2.00
Shea Butter	2.00
Oxydex 2004 (BHT (and) Glyceryl Stearate (and) Glyceryl Oleate (and) Ascorbyl Palmitate (and) Citric Acid (and) Propylene Glycol)	0.02
B) Magnesium Sulfate	2.00
Nipagin M (Methyl Paraben)	0.15
Nipasol M (Propyl Paraben)	0.05
Phenoxyethanol	0.50
Deionized Water	66.28

Preparation:

(A) is heated to 75-80 degrees C. (B) is brought to the same temperature and emulsified into (A). Cool while stirring to the desired temperature.

Formulation No. 1.2M

Soft W/O Cream with Softisan 649

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Softisan 649 (Bis-Diglyceryl Polyacryladipate-2)	3.00
Alugel DF 30 (Aluminum Stearate)	0.75
Mineral Oil	10.00
Petrolatum	10.00
B) Preservative	q.s.
Water	up to 100.00
Fragrance Bellefresch	0.30

Preparation:

(A) is mixed homogeneously and brought to 80 degrees C. (B) is brought to the same temperature and emulsified into (A). Perfume is added at about 35 degrees C.

Formulation 1.2N

SOURCE: Huls America Inc.: Suggested Formulations

W/O-Cream

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin WOL	6.00
	Lunacera M	2.50
	Mineral oil, low viscosity	5.00
	Isopropyl palmitate	4.00
	Isopropyl isostearate	4.00
	Squalane	5.00
	Panthenol	0.50
B	1,2-Propylene glycol	4.00
	Magnesium sulfate	0.70
	Citric acid (10%)	0.10
	Hoechst Potassium Sorbate	0.15
	Hoechst Sorbic Acid	0.08
	Water	67.57
C	Fragrance	0.40

Procedure:

- 1 Melt A at ca. 80C.
 - 2 Heat B to ca. 80C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 At ca. 35C add C to 3.
- Formula A VI/2754

Chamomile Glycerin Cream

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin CG	10.00
	Mineral oil, high viscosity	8.00
	Cetiol SN	4.00
	Isopropyl isostearate	4.00
B	Carbopol 980	0.30
C	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Caustic soda solution (10%)	1.20
	Extrapon chamomile special	0.50
	Glycerin	10.00
	Water	61.25
	Preservative	q.s.
D	Fragrance	0.40

Procedure:

- 1 Melt A at ca. 70C then add B.
 - 2 Heat C to ca. 70C.
 - 3 Stir 2 into 1
 - 4 Stir until cool.
 - 5 At 35C add D to 4.
 - 6 Homogenize if necessary.
- Formula A VI/6506

Section VI

Hair Care Products

Acudyne 255 55% VOC DME Aerosol Hair Spray

Fast-drying, extremely low-tack and excellent curl retention formula.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	31.84
Ethanol	25.00
AMP-95	0.56
DC-190 Fluid	0.10
B. Acudyne 255 (41%)	12.50
C. Dymel A	30.00

Procedure:

Prepare phase A. Then add phase B with stirring. Mix until solution is slightly turbid but active ingredients are dispersed. Add phase C. The mixture will immediately turn clear.

Physical Characteristics:

Cloud point: <-22F

Vapor Pressure: 33 psig at 70F

87 psig at 130F

Formulation PF-0371 suggested by Rohm & Haas (PF-050)

Non-Aerosol Hair Spray, Low VOC

<u>Ingredients:</u>	<u>% by Weight</u>
A. Alcohol, denatured	74.00
Gantrez ES-225	9.20
B. AMP-95	0.40
Permethyl 101A	5.15
Permethyl 102A	10.00
Vigilan AWS	1.00
C. Fragrance	0.25

Procedure:

Mix A until clear and uniform. Slowly add B in order shown. Mix until clear solution develops. Add C as desired.

Formulation PF-0372 suggested by Presperse

SOURCE: Angus Chemical Co.: Product Formulary

Acudyne 255 55% VOC Extra Hold Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	27.14
Ethanol	55.00
AMP-95	0.76
DC 190 Fluid	0.10
B. Acudyne 255 (41%)	17.00

Procedure:

Prepare phase A. Then add phase B with stirring. Mix until solution is clear.

Physical Characteristics:

Cloud point: -18F

Viscosity (#1 @ 60 rpm): 10.0 cps

Formulation PF-0390 suggested by Rohm & Haas Co. (PF-056)

Acudyne 255 0% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Water	88.78
AQ-55	3.20
AMP-95	0.42
Citroflex-2	0.10
Acudyne 255 (41%)	7.50
Preservative	q.s.

Procedure:

Heat 40 parts water to 90C. Add phase B with stirring. Add 48.8 parts ambient temperature water and allow to cool to approximately room temperature. Add remainder of ingredients in order.

Physical Characteristics:

Cloud point: -10C

Viscosity: 4.0 cps

Formulation PF-0391 suggested by Rohm & Haas Co. (PF-058)

SOURCE: Angus Chemical Co.: Product Formulary

Aerosol Styling Spray

Formulated to give a very quick drying spray which gives a firm but natural hold. The fast drying feature allows instant setting of curls. The spray also affords easy comb-out and washability.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Versatyl-42	4.50
Aminomethyl Propanol	1.08
Purcellin Oil 2/066210	0.10
Dow Corning 190 Surfactant	0.10
Monamid 716	0.10
Fragrance	0.10
Ethanol, SDA-40	49.02
Propellant A-46	45.00

Preparation:

Charge mixing vessel with SDA-40. While mixing, add amino-methyl propanol. Sift Versatyl-42 into solution with continued mixing. When solution is complete, add remaining ingredients. Filter solution and fill aerosol containers. Charge propellant.

Can: Continental

Valve: Precision, 0.018" stem (#04-1220), Buna gasket

(#05-0310, SS spring (#06-6010), 0.018" body x 0.013"

V.T. (#07-0131), #12-7100 cup, #09-2010 dip tube,

#01-1836 actuator.

Formulation No. 6186-101

Aqueous Conditioning and Styling Mousse

This conditioning mousse provides improved gloss and manageability allowing for easier styling.

<u>Ingredients:</u>	<u>Parts by Weight</u>
A) Celquat L-200	1.00
Deionized Water	81.90
B) Crotein SPO	0.20
Crotein Q	0.20
Ethoquad 0/12	1.00
DC-190	0.20
Sodium Chloride	0.50
Preservative	q.s.
Fragrance	q.s.
C) Propellant A-46	15.00
Valve Specifications:	Precision Foam Valve
	Stem: 2 x 0.020"
	Body: Inverted with Tailpiece
	Actuator: Mars Inverted Spout

Preparation:

Prepare solution of (A). Add (B). When homogenous, filter and fill concentrate. Charge (C).

Formulation No. 4497-113

SOURCE: National Starch and Chemical Co.; Suggested Formulations

Alcohol-Free Aerosol Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Lovocryl 47	5.00
AMP-95	1.01
Burst, RSD-10	0.50
Deionized Water	60.49
Dimethyl ether	33.00
Preservative	q.s.
Cloud Point: -15C	

Procedure:

Disperse Burst in water. Dissolve AMP-95 in the solution. When complete, slowly sift in Lovocryl 47 while maintaining good agitation. Mix until homogeneous. Filter and fill. Charge with propellant.

Valve: Seaquist Valve NS-34

Stem: 0.013"

Gasket: Butyl, 0.042" Tnk. Code: 501

Spring: 0.020" SS

Body: Capillary

Cup: Regular, Epoxy Top, Laminate Bottom,
Dimpled, Code: 1610

Vapor Tap: 0.013"

Dip Tube: 0.040"

Actuator: Excel-200 Misty 0.016" Misty

Formulation PF-0351 suggested by National Starch & Chemical Corp. (7502:95B)

Hair Spritz

<u>Ingredients:</u>	<u>% by Weight</u>
Crovol M40	0.50
AMP-95	0.16
Ethanol DEB100	to 100.00
Gantrez ES425	8.00
Escalol 507	1.00
Deionized water	11.36
d-Panthenol	0.10
Perfume	q.s.
Preservatives	q.s.
Color	q.s.

Procedure:

Dissolve AMP in the alcohol. Add Gantrez ES resin with mixing. Mix in the Escalol and then add the Crovol. Pre-mix the water and panthenol, and then add the alcohol. Mix until clear.

Formulation PF-0359E suggested by Croda, UK

SOURCE: Angus Chemical Co.: Product Formulary

Alcohol-Free Firm Holding Mousse

This alcohol-free, firm holding mousse gives very good wet/dry combability, excellent hold, and also conditions the hair.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Amphomer	2.63
Lovocryl-47	1.13
AMP-95	0.64
Triton X-100	0.20
DC-929 Silicone	0.60
Propylene Glycol	0.10
Panthenol	0.20
Varion CADG-LS	0.20
Dowicil 200	0.10
Deionized Water	46.90
B. Natrosol 250 HHX	0.30
Deionized Water	37.00
C. Propellant A-46	10.00

Procedure:

Prepare portions (A) and (B). When solutions are complete, add (A) to (B) and mix until homogeneous. Filter and fill concentrate. Emplace Valve. Charge propellant (C).

Formulation PF-0354 suggested by National Starch & Chemical Corp. (8384-49-4)

Alcohol-Free Styling Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Lovocryl 47	2.50
AMP-95	0.51
DC-929 Silicone	0.40
Triton X-100	0.30
Varion CADG-LS	0.10
Fragrance	q.s.
Dowicil 200	0.10
Deionized water	48.79
B. Natrosol 250 HHR	0.30
Deionized water	37.00
C. Propellant A-46	10.00

Procedure:

Prepare portions (A) and (B) separately. When solutions are complete, add (A) to (B) and mix until homogeneous. Filter and fill concentrate. Charge with propellant (C).

Formulation PF-0355 suggested by National Starch and Chemical Corp. (7502:105A)

SOURCE: Angus Chemical Corp.: Product Formulary

Alcohol-Free Non-Aerosol Spritz

This low VOC formulation provides sprayability, firm hold, and good humidity resistance.

<u>Ingredients:</u>	<u>% by Weight</u>
Emulsion 25-3800 (50% active)	14.00
AMP-95	1.00
Monawet MO-75E	0.30
Deionized water	84.70

Procedure:

Combine water, MO-75E and AMP. Next, add polymer emulsion with stirring until completely dissolved. Filter and fill concentrate.

Valving and Actuator:

Pump Type:	EuroMist, 190 mcl
Liner:	PE/Butyl
Closure:	24-410, White
Spring:	302 SS, 1 lb 0 oz.
Body:	190 mcl output
Dip Tube:	7", 0.060" ID
Insert:	.010" x .010" deep
Seal Valve:	Standard
Hood:	SBS, Clear
Turret:	24 mm

Formulation PF-0402 suggested by National Starch & Chemical Co. (8757-120-2)

Super Hold Pump Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	84.21
Deionized water	8.12
AMP-95	1.47
Dow Corning Q2-5220 Polyether	0.10
Fragrance (Peach Floral 92F/3235)	0.10
B. Luvimer 100 P	6.00

Procedure:

Combine phase A ingredients in order listed, mixing after each addition.

Sprinkle B into A with mixing until clear.

Formulation PF-0398 suggested by BASF (DKL84/3)

SOURCE: Angus Chemical Co.: Product Formulary

Alcohol-Free Ringing Gel with Hold

<u>Ingredients:</u>	<u>Parts by Weight</u>
Part A:	
Deionized Water	57.59
Propylene Glycol	12.00
AMP-Regular	0.41
Amphomer	3.00
Part B:	
Lt. Mineral Oil	10.00
Volpo 5	9.00
Crodafos N10 Neutral	4.00
Crodafos N3 Neutral	3.00
Part C:	
Germaben II	1.00

Preparation:

Part A: Combine the water, AMP, and propylene glycol. While maintaining good agitation, slowly sift in Amphomer. Slowly heat Part A to 70C.

Part B: Combine ingredients of Part B and heat to 80C. Add Part B to Part A with mixing and start to cool. Add Part C when the temperature drops to approximately 55C. Continue mixing for five minutes or until homogeneous. Cool to room temperature.

Formula No. 8802:76B

Cream Hair Conditioner

This cream hair conditioner has excellent wet combability, adds body to the hair, and has good hold.

<u>Ingredients:</u>	<u>Parts by Weight</u>
A) Celquat L-200	1.00
Triethanolamine	0.50
Propylene Glycol	2.25
Distilled Water	76.25
Preservative	q.s.
B) Acetulan	0.50
Amerchol L-101	2.50
Stearic Acid XXX	1.25
Emerest 2407	1.00
Mineral Oil	14.75
Fragrance	q.s.

Preparation:

Heat A and B separately to 80C. While mixing, add B to A. Continue mixing while cooling to 25-30C. Add C. Adjust pH to 7.5 if necessary. Mix until uniform.

Formula No. 3474-28

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Alcohol-Free Styling Mousse

This alcohol-free styling mousse has good wet/dry combability, good subjective properties and excellent hold.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Lovocryl 47	3.00
AMP-95	0.63
DC-929 Silicone	0.30
Triton X-100	0.30
dl-Panthenol	0.10
Neo Heliopan Hydro	0.10
Croton Q	0.20
Dowicil 200	0.10
Deionized water	40.01
B. Natrosol 250 HHR	0.40
Deionized water	44.86
C. Propellant A-46	10.00

Procedure:

Prepare part A by dissolving AMP-95 in water. While maintaining good agitation, slowly sift in the Lovocryl-47. When solution is complete, add the remaining ingredients. Prepare part B. When solutions are complete, add A to B and mix until homogeneous. Filter and fill concentrate. Charge cans with propellant C.

Formulation PF-0356 suggested by National Starch & Chemical Corp. (7879:H101)

Alcohol-Free Styling Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Amphomer	3.00
AMP-95	0.52
DC-929 Silicone	0.40
Triton X-100	0.30
Varion CADG	0.10
Fragrance	q.s.
Dowicil 200	0.10
Deionized water	48.08
DC-190	0.40
B. Natrosol 250 HHR	0.30
Deionized water	36.80
C. Propellant A-46	10.00

Procedure:

Prepare portions A and B. When solutions are complete, add A to B and mix until homogeneous. Filter and fill concentrate. Charge propellant C.

Formulation PF-0357 suggested by National Starch & Chemical Corp. (7974:32-3)

SOURCE: Angus Chemical Corp.: Product Formulary

Brush-On Hair Color

This formulation provides dramatic streaks and highlights yet rinses out easily.

	Wt%
A: Veegum, Magnesium Aluminum Silicate (5% Aq. Soln.)	10.00
B: Hydroxypropylcellulose (5% Aq. Soln.) (Klucel G)	15.00
C: Deionized Water	24.00
PVP (Luvisko1 K30)	2.00
Methylparaben	0.20
D: Cetyl Alcohol	3.60
Ceteareth-25 (Cremophor A25)	2.40
Propylparaben	0.10
E: Deionized Water	17.34
Propylene Glycol	5.00
F: Mica (and) Iron Oxides (Colorona Copper)	20.00
G: DMDM Hydantoin (Glydant)	0.36

Procedure:

Prepare A and B in advance. Combine C and heat to 75C with stirring. Combine D. Heat to 75C stirring until clear. Add D to C with counter rotation agitation. Cool to 40C. Separately, add B to A followed by E, stirring until homogeneous. Add combined A,B,E to C+D. Homogenize at high speed for 5 minutes with a Silverson-type homogenizer. Add F and G, stirring with counter rotation agitation. Cool to 30C. Package in mascara vials with brush applicator.

Formula from Rona

Creme-in Hair Cleanser

	Wt%
Ammonium Lauryl Sulfate (Carsonol ALS)	15.00
Cocoamidopropyl Betaine	10.00
Lauramide DEA (Carsamide SAL-7)	2.00
PPG-5-Ceteth 10 Phosphate (Crodafos SG)	2.00
Stearyl Alcohol (and) Ceteareth 20 (Cosmowax K)	2.50
Sucrose Cocoate (Crodesta SL-40)	12.00
Steartrimonium Hydroxyethyl Hydrolyzed Collagen (Crotein Q)	3.00
Veegum K, Magnesium Aluminum Silicate	0.45
Water	53.05
Dye, fragrance	q.s.

Procedure:

Disperse the Veegum K in half the water and heat to 85C until a uniform slurry is achieved. Dissolve the Crodesta in the rest of the water, then dissolve the Crotein Q. Heat other ingredients to 60C with stirring. Cool to 40C, add fragrance and fill off.

Formula from Croda

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

California Dream Hairspray - 55% VOC - 5% Solids

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Deionized Water	27.83
SD Alcohol 40, 190 proof	15.80
D-Panthenol	0.20
Cremophor A 25	0.25
Dow Corning 193 Polyether	0.50
AMP-95	1.22
Luvimer Low VOC	14.00
Phase B:	
Fragrance (Vibrant Spash 94F/2203)	0.20
Phase C:	
Dymel A	40.00

Procedure:

Combine Phase A ingredients in the written order.

Add B to A and mix well.

Fill into appropriate containers with propellant.

Packaging:

White Coated Aluminum Can (Peerless Tube Corp.)

Aquasol Valve & Concave Kosmos Actuator (Precision Valve Corp)

Overcap (Berry Plastics)

Formulation PF-0349 suggested by BASF Corp. (SG1096/4)

Non-Alcohol Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Amphomer	5.00
AMP-95	0.89
Deionized Water	61.66
Sodium Benzoate	0.10
Ammonium hydroxide	0.05
Fragrance	q.s.
Glycerine	0.10
DC-190 Silicone	0.20
Dimethyl Ether	32.00

Procedure:

Dissolve AMP-95, Sodium Benzoate and Ammonium Hydroxide in the water. Slowly add Amphomer to the solution while maintaining good agitation. When solution is complete, add remaining ingredients until homogeneous. Filter and fill concentrate. Add propellant.

Formulation PF-0350 suggested by National Starch & Chemical Corp. (6472:93)

SOURCE: Angus Chemical Co.: Product Formulary

Clear Hair Rinse Formulation

Natrosol viscosifies this crystal-clear hair rinse, which promotes manageability. Control formulas made without Natrosol have viscosities of less than 100 cps.

<u>Ingredients:</u>	<u>Weight%</u>
Natrosol 250HHR CS	1.0
Water	73.5
Cocamidopropylamine oxide (30%)	5.1
Lauramine oxide (30%)	10.2
Cetrimonium chloride (25%)	10.2
Perfume, preservative	q.s. to 100.0

Procedure:

1. Disperse Natrosol in water with good agitation. Mix until fully dissolved.
2. Add the remaining ingredients in the order listed, mixing well between additions.
(Brookfield viscosity at 30 rpm, 25C=3,360 cps [mPas])

Pearlescent Cream Rinse Formulation

Natrosol viscosifies this product and prevents phase separation.

<u>Ingredients:</u>	<u>Weight%</u>
<u>Phase A:</u>	
Natrosol 250HHR CS	1.3
Water	82.3
<u>Phase B:</u>	
Stearalkonium chloride (25%)	10.1
Propylene glycol	1.5
Glycol stearate	1.5
Oleth-20	1.5
Polyquaternium-17 (62%)	1.8
Perfume, preservative	q.s. to 100.0

Procedure:

1. Disperse Natrosol in water with good agitation. Mix until fully dissolved.
2. In a separate vessel, mix the stearalkonium chloride and propylene glycol. Heat to 80C.
3. Add the other ingredients listed in Phase B, in the order listed, to the mixture of stearalkonium chloride and propylene glycol. Mix well between each addition.
4. Add the surfactant mixture to the Natrosol solution. Mix well. Cool to 35C.
5. Add perfume and preservative.
(Brookfield viscosity at 30 rpm, 25C = 8,600 cps [mPas])

SOURCE: Aqualon Division: Hair Conditioning Products with
Natrosol Hydroxyethylcellulose

Concentrated Hair Repair
with UV Protection

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Dimethicone (50-60,000 cs)	15.00
Isohexadecane	29.65
Cyclomethicone	15.00
Cyclomethicone and Dimethiconol and Dimethicone (Abil OSW 12)	25.00
Dimethicone/Sodium PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.00
Phenyl Trimethicone (Abil AV 20)	5.00
Octyl Methoxycinnamate	1.00
Propylparaben	0.10
Phase B:	
Quaternium-80 (Abil Quat 3474)	0.75
Ethanol Denatured	4.00
Methyl Gluceth-20	3.50

Procedure:

1. Combine ingredients of Phase A together in order shown. Mix until fully dispersed.
2. Combine ingredients of Phase B together. Mix well.
3. Add B to A. Mix well. Avoid air entrapment.

Iridescent Hair Gel Concentrate

<u>Ingredients:</u>	<u>Weight%</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	27.27
Phenyl Trimethicone (Abil AV-20)	4.55
Propylene Glycol	40.93
Hexylene Glycol	4.55
Water	20.45
Preservatives	Q.S.
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	2.25

Procedure:

Add the ingredients in order, mixing well between additions. When all ingredients are combined, continue mixing until clear and iridescent.

SOURCE: Goldschmidt Chemical Co.: Suggested Formulations

Conditioner for Dry Brittle Hair

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Deionized Water	88.20
A	Guar Hyd. Propyl Trimonium Chloride	0.80
A	Quaternium-76 Hydrolyzed Animal Prot.	6.00
B	Glycol Stearate	2.00
B	Cetyl Alcohol	0.50
B	Myrj 52S (PEG-40 Stearate)	1.50
B	Oils of Aloha Kukui Nut Oil	1.00
C	Preservative	QS

Manufacturing Procedure:

Phase A: Disperse Guar in water while heating to 65C.

Phase B: Combine fatty components and add to water phase. Cool to 40C.

Phase C: Add remaining ingredients.

pH: 5.0

The primary conditioners are Guar hydroxy propyl trimonium chloride and the Quaternium-76 Hydrolyzed Animal Protein. Emulsifier is the Myrj 52S. Kukui Nut Oil (Macadamia Nut could be used) provides a glossing agent for dry hair and replaces the natural oils lost in shampooing.

SOURCE: Oils of Aloha: Suggested Formulation

Hair Styling Gel

<u>A:</u>	<u>Wt%</u>
Deionized Water	85.95
Carbomer 940	1.00
<u>B:</u>	
Deionized Water	3.00
Triethanolamine (99%)	1.00
<u>C:</u>	
Vinylcaprolactam/PVP/Dimethylaminoethylmethacrylate Copolymer	7.50
<u>D:</u>	
Silicone Quaternium-5 (Pecosil SMQ-40)	1.50
<u>E:</u>	
Methylchloroisothiazolinone (and) Methylisothiazolinone	0.05

Procedure:

Disperse Carbomer in Phase A water. When a uniform dispersion is obtained, add Phase B to Phase A. Slowly sweep in Phase C, Phase D and Phase E until a uniform gel is obtained.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Conditioning Perm

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Crodacol C-95	2.00
Crodafos N10N	1.50
Volpo S-2	0.50
Carnation Mineral Oil (Witco)	13.00
White Protopet 1S Petrolatum (Witco)	11.50
Stearic Acid XXX	8.00
Water Phase:	
Volpo S-10	2.50
Croquat M	1.00
Propylene Glycol U.S.P.	2.00
Hampol OL Crystals (Lowenstein)	0.75
Germaben II	1.00
Water, Deionized	42.62
Ammonium Thioglycolate (60%)	9.00
Ammonium Hydroxide (29%)	4.63

Procedure:

Heat oil phase to 80C; heat water phase to 80-85C. Add water to oils under good agitation. Adjust ammonium thioglycolate with ammonium hydroxide, cool emulsion to 45C then add to ammonium thioglycolate solution. Fill off.

Scalp and Hair Conditioner

<u>Formula:</u>	<u>% by Weight</u>
Emerest 1723	20.5
Emerest 2316	14.5
White Protopet 1S Petrolatum (Witco)	47.0
Emsorb 2500	6.5
Emerwax 1266	10.5
Emerest 2486	1.0
Fragrance	q.s.

Procedure:

Combine all ingredients and heat to 85-90C with agitation. Cool to 65C with moderate agitation. Perfume and package.

SOURCE: Witco Corp.: Suggested Formulations

Conditioning Styling Mousse

This mousse has excellent conditioning properties and superior wet combing with a natural feel.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Celquat L-200	1.00
PEG-36 Castor Oil	0.10
Collamino Complex 40	0.10
Arquad T-50	0.10
Preservative	q.s.
Fragrance	q.s.
Anhydrous Ethanol, SDA-40	15.00
Distilled Water	73.70
Propellant A-46	10.00

Procedure:

Slowly sift Celquat L-200 into distilled water while mixing. When solution is complete, add remaining ingredients in concentrate. Mix until homogeneous. Filter and fill.

Instructions for Use:

Shampoo, rinse, and towel dry hair. Shake can well, invert and press button to dispense egg-sized amount of foam into palm of hand. Adjust amount depending on hair length and amount of control desired. Massage evenly through hair. Do not rinse. Style hair as desired.

Formulation No. 5231-32

Thermal Mousse

This alcohol-free conditioning mousse has superior wet combing, adds body to hair, and has good fixative properties.

<u>Ingredients:</u>	<u>Parts by Weight</u>
A) Celquat L-200	3.00
DC 929 Silicone	0.30
Triton X-100	0.30
d1 Panthenol	0.10
Crotein Q	0.20
Germaben II	1.00
Deionized Water	85.10
B) Propellant A-46	10.00

Preparation:

Dissolve the Celquat L-200 in deionized water. When solution is complete, add the remaining ingredients and mix until homogeneous. Filter and fill concentrate. Charge cans with propellant

Formulation No. 7879:H102B

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Cream Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	85.45
Sodium Chloride	0.30
Stearamidopropyl Dimethylamine (Tego Amid S 18)	1.50
Citric Acid Monohydrate	0.60
Methyl Paraben	0.20
Mineral Oil	1.25
Cyclomethicone	3.50
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Cetyl Alcohol	0.50
Cetyl Dimethicone (Abil Wax 9801)	0.35
Phase B:	
Propylene Glycol	1.00
Quaternium-80 (Abil Quat 3270)	0.25
Dimethicone Copolyol (Abil B 8852)	0.50
Phase C:	
Propyl Paraben	0.10
Perfume	Q.S.
Color	Q.S.

Procedure:

1. Heat the water to 70-80C.
2. Add ingredients of Phase A in descending order. Mix.
3. Begin ambient cooling of batch. Add pre-mixed materials of Phase B to reactor. Homogenize.
4. Add material of Phase C at 40C with sweep mixer. Dispense at 35C.

Conditioning Rinse
(Cold Process)

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Quaternium-80 (Abil Quat 3272)	0.4
Cocamidopropyl Betaine (Tego Betaine F)	2.5
Fragrance	Q.S.
Water	40.9
Glycerin	1.5
Phase B:	
Water	50.0
Hydroxyethyl Cellulose	1.5
Guar Hydroxypropyltrimonium Chloride	0.2
Preservatives	Q.S.
Phase C:	
Citric Acid	to pH 4.0

Procedure:

1. Mix the ingredients of Phase A. 2. Add the water of Phase B to a tank. Add preservatives. Mix until clear. Disperse Hydroxyethyl Cellulose and Guar Hydroxypropyltrimonium Chloride. Mix until fully dispersed and viscosity increases.
3. Add Phase B to Phase A. Mix.
4. Adjust pH to 4.0 with Citric Acid.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Cream Curl Activator

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	80.43
Hydroxypropyl Methylcellulose	0.20
Triethanolamine	0.02
Panthenol	1.00
Hydrolyzed Silk Protein	1.00
Quaternium-15	0.30
B:	
Macol CPS	6.00
Solulan 16	1.00
Blandol Mineral Oil (Witco)	2.00
Masil 656 Fluid	3.00
Masil SF-V Fluid	3.00
Masil 280	2.00
C:	
Citric Acid 50%	0.05
Fragrance	q.s.

Procedure:

Disperse hydroxypropyl methylcellulose in the water, add TEA to initiate hydration. After 20 mins. add remaining A ingredients, heat to 55C and stir. Separately blend B and heat to 55C. Add B to A, maintain agitation while cooling to 40C. Adjust pH and add fragrance.

Hair Pomade

<u>Formula:</u>	<u>% by Weight</u>
White Protopet 1S (Witco)	28.0
Blandol Mineral Oil (Witco)	30.0
Ohlan Hydroxylated Lanolin	27.0
Kessco PEG 400 Dilaurate	8.0
Paraffin Wax	6.0
Isopropyl Myristate	1.0
Perfume and Color	q.s.

Procedure:

Combine all ingredients, heat to 80C with stirring until uniform and clear. Cool with stirring to 40C.

SOURCE: Witco Corp.: Suggested Formulations

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, together with a cationic conditioner, Incroquat BES-35S. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. The increased sheen, silkier, softer feel, and improved texture the hair acquires is the result of the quick delivery of the Crodamol esters, Super Refined Wheat Germ Oil and Incroquat BES-35S by Crodafos CES. Because Crodafos CES also improves its application properties, the product rinses out extremely easily without incidence of drag or a waxy deposit.

Ingredients:**Part A:**

	<u>Wt%</u>
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Incroquat BES-35S (Behenamidopropylethylidimonium Ethosulfate (and) Stearyl Alcohol)	1.5
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0

Part B:

Deionized Water	83.65
TEA 99%	0.35
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

pH=5.5±0.5

Viscosity=16,000cps±10%, (Spindle TD @ 10RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-180

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, together with a cationic conditioner, Incroquat CTC-30. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. The increased sheen, silkier, softer feel, and improved texture the hair acquires is the result of the quick delivery of the Crodamol esters, Super Refined Wheat Germ Oil and Incroquat CTC-30 by Crodafos CES. Because Crodafos CES also improves its application properties, the product rinses out extremely easily without incidence of drag or a waxy deposit.

Ingredients:Wt%**Part A:**

Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0

Part B:

Deionized Water	83.65
Incroquat CTC-30 (Cetrimonium Chloride)	1.5
TEA 99%	0.35

Part C:

Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0
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pH=5.5+-0.5

Viscosity=18,500cps+-10% (Spindle TD @ 10 RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 50C. Add Part C while mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-181

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, a conditioning and emulsifying system from Croda, together with a cationic conditioner, Incroquat CTC-30. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. Increased sheen, silkier, softer feel, and improved texture. The product rinses out extremely easily without incidence of drag or a waxy deposit.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil (Wheat Germ Oil)	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0
Part B:	
Deionized Water	83.65
Incroquat CTC-30 (Cetrimonium Chloride)	1.50
TEA 99%	0.35
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

pH=5.5+-0.5

Viscosity=18,500cps+-10% (Spindle TD @ 10 RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 50C. Add Part C while mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-181

Creame Rinse Conditioner for Color-Treated and Permed Hair
(Formula 89-1202)

This specially formulated conditioner gently conditions the hair only where it is needed and helps protect and restore damaged, or chemically treated hair.

	<u>% by Weight</u>
Water	91.5
Miracare CT-100	3.5
Cetyl Alcohol, N.F.	1.5
DL-Panthenol (Roche)	0.5
Hydrolyzed Animal Protein (Hormel Peptin 2000)	3.0
Citric Acid	Q.S. to pH 4-4.5

Blending Procedure:

1. Heat water to 75C.
2. With smooth agitation, slowly blend ingredients in the order listed.
3. Adjust pH of system to 4.0-4.5 with citric acid, as needed.
4. Cool to 40-45C and add compatible fragrance, dye(s) and preservative.

Typical Formulation Properties:

Appearance @ 25C: Viscous, opaque liquid
 pH: 8.5-10.0
 % Non Volatiles: 4.0-4.5

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Jojoba Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
(A): Water D.I.	80.0
Celquest H-100	0.5
(B): Polawax A-31	1.5
Jojoba Oil	1.0
PVP (K-30)	1.5
(C): SDA-40B (Reg)	15.2
Glydant	0.2
Perfume	0.1

Manufacturing Directions:

- (1) Stir A till clear solution.
 - (2) Add B and heat and stir till dissolved.
 - (3) Cool and add C pH-4
- Aerosol Fill:** 85% of above concentrate/15% of A-46 Propellent
- Suppliers:**

Cans - Lined Peerless Mousse containers

Valves - Precision Value Mousse valves and spouts

OSURCE: Frank B. Ross Co., Inc.: Suggested Formulation

Detangling Creme Rinse

N-Hance 3000 cationic guar provides wet and dry combability to this flowable, opaque, after-shampoo rinse for hair detangling and conditioning. This product will also increase hair softness and reduce fly-away. The cyclomethicone contributes gloss and adds protection against damage from heat styling. With N-Hance, the viscosity is 2,000 cps and the pH=5.2. Without N-Hance, the formulation is water-thin and experiences phase separation.

<u>Ingredient:</u>	<u>Wt%</u>
Aqueous Phase:	
Distilled water	q.s. to 100.00
N-Hance 3000 cationic guar	1.00
Cetrimonium chloride (25% active)	4.00
Citric acid (50% solution)	0.35
Oil Phase:	
Cetyl alcohol	1.50
Cyclomethicone	1.50
Stearamidopropyl dimethylamine	0.70
Glyceryl stearate	0.60
Polysorbate 80	0.40
Propylene glycol (and) diazolidinyl urea (and) methylparaben (and) propylparaben	0.75

Procedure:

1. Disperse N-Hance 3000 cationic guar by adding it to the vortex of well-agitated water. Add the citric acid solution, which promotes hydration of the N-Hance and neutralizes the stearamidopropyl dimethylamine. As elevated temperature is needed to form the emulsion, start heating to 65C. Mix until the polymer is fully dissolved.
2. Add the cetrimonium chloride and mix well.
3. In a separate vessel, combine the oil-phase ingredients. Heat to 65C.
4. Add the aqueous-phase ingredients to the oil-phase ingredients with good agitation. Turn off heat but continue mixing.
5. When at 40C or below, add preservatives and fragrance.

SOURCE: Aqualon Division: N-Hance 3000 Cationic Guar: Formulation

Easy Spreading Mousse

This mousse contains Dow Corning 193 surfactant to plasticize the Gantrez resin and to enhance the spreadability of the resin on the hair. Dow Corning 193 surfactant also assists in foam building and foam stability.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 193	0.50
Gantrez ES-225	5.00
AMP-95	0.20
Water	74.30
SD Alcohol 40	10.00
Propellant A-46	10.00

Procedure:

Add the AMP-95 to the ethanol. Stir in the Gantrez. Add Dow Corning 193 surfactant to the water. Stir the water mixture into the ethanol mixture. Add fragrance and preservative, if desired.

Aerosol Filling:

Load the concentrate (90% by weight) and fill with A-46 hydrocarbon propellant (10% by weight).

Stability:

The stability of this formulation has not been assessed.
Formulation PF-0364 suggested by Dow Corning Corp. (E2-5284)

Gantrez Hair Spray with Cyclomethicone

This hair spray contains silicone cyclics, which plasticize the resin. The cyclics give improved curl retention when compared with the same formulation without cyclics. This formulation shows how silicone cyclics can be used in Gantrez-based hair sprays.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 345 Fluid	1.00
Gantrez ES-425	7.60
AMP-Regular	0.16
SD Alcohol 40	71.24
Propellant A-46	20.00

Procedure:

Weigh out the alcohol and dissolve the AMP into it. Stir in the Gantrez. Add the Dow Corning 345 fluid. Add fragrance if desired. Dow Corning 344 fluid can be substituted for Dow Corning 345 fluid.

Aerosol Filling:

Load the concentrate (80% by weight) and fill with A-46 hydrocarbon propellant (20% by weight).

Stability:

The stability of this formulation has not been assessed.
Formulation PF-0365 suggested by Dow Corning Corp. (E2-5273)

SOURCE: Angus Chemical Co.: Product Formulary

Elegant Touch Strong Hold, 80% VOC Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 200 proof	40.00
D-Panthenol USP	0.30
Luviquat Mono CP	0.10
Luviskol VA 73 W	1.00
Uvinul MC 80	0.10
Dow Corning Q2-5220	0.23
AMP Regular	1.47
B. Luvimer 36D	16.70
C. Fragrance	0.10
D. Dimethyl Ether	40.00

Procedure:

Combine ingredients in phase A.

Add B to A and mix well.

Add C to AB.

Fill into appropriate containers with propellant.

Formulation PF-0393 suggested by BASF (SG1085/1A)

Acudyne 255 Spray Gel Formulation

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	79.94
Ethanol	6.00
Disodium EDTA	0.10
AMP-95	0.62
Kathon CG	0.04
Citroflex-2	0.10
Acudyne 255 (41%)	10.00
B. Aculyn 22	3.20

Procedure:

Add ingredients of phase A in order listed. Stir until clear, add phase B. Stir until thickened.

Physical Characteristics:

Viscosity (#4 @ 60 rpm): 400 cps

Formulation PF-0392 suggested by Rohm & Haas Co. (PF-022b)

SOURCE: Angus Chemical Co.: Product Formulary

Extra-Hold Conditioning Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Amphomer	3.75
AMP-95	0.60
Amodimethicone (and) nonoxynol-10 (and) tallow-trimonium chloride	0.40
Phospholipid EFA	0.60
Alcohol, denatured	10.00
Water	37.35
B. Hydroxyethyl cellulose	0.30
C. Water	37.00
D. Propellant	10.00

Procedure:

Combine A. Carefully sprinkle B in C with good agitation. Heating may help solubilization. Blend BC in A. Pressurize with D

Formulation PF-0370 suggested by Angus/Mona

De-Frizzing Creme-Gel

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	89.45
D-Panthenol 50P	1.00
AMP-95	0.25
Luvimer 36 D	2.80
B. Luvitol EHO	2.00
Sepigel 305	4.00
C. Nipaguard DMDMH	0.50
D. Fragrance	q.s.

Procedure:

Combine phase A in order listed while mixing.

Combine phase B.

Add B to A under propeller mixing until uniform emulsion is formed.

Add C and D to AB and mix until uniform.

Formulation PF-0395 suggested by BASF (ND547/2)

SOURCE: Angus Chemical Co.: Product Formulary

Firm Holding Mousse
(Alcohol Free)

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	43.80
Tetrasodium EDTA	0.10
Octylacrylamide/Acrylates/Butylaminoethyl Methacrylate Copolymer	3.75
Aminomethyl Propanol	0.65
Octoxynol-9	0.20
Quaternium-80 (Abil Quat 3272)	0.25
Dimethicone Copolyol (Abil B 88183)	0.40
Cocamidopropyl Betaine (Tego Betaine E)	0.25
Propylene Glycol	0.20
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol and Sodium Benzoate (and) Lactic Acid (Lactil)	0.20
Panthanol	0.20
Preservatives	Q.S.
Fragrance	Q.S.
Phase B:	
Hydroxyethyl Cellulose	3.00
Water	37.00
Phase C:	
Propellant A-46	10.00
Procedure:	
1. Mix ingredients of Phase A.	
2. Disperse the Hydroxyethyl Cellulose into the water of Phase B. Mix until clear.	
3. Combine Phases A/B. Filter.	
4. Fill.	
5. Charge Propellant.	

Spray Hair Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Water	91.10
Preservatives	Q.S.
Propylene Glycol	3.00
Glycerin	2.50
Quaternium-80 (Abil Quat 3272)	0.35
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Citric Acid	0.20
Dimethicone Copolyol (Abil B 8851)	0.60
PEG-30 Glyceryl Oleate (Tagat O)	2.00
Fragrance	Q.S.
Procedure:	
Combine ingredients in order, mixing well between additions.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Glossing Hair Conditioner

This conditioner provides exceptional hair control, wet and dry combability, and gives a soft gloss to the hair.

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	91.25
Citric Acid	0.50
Phase B:	
Stearamidopropyl Dimethylamine (Tego Amid S 18)	1.25
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Behenoxy Dimethicone (Abil Wax 2440)	0.35
Phase C:	
Propylene Glycol	0.90
Quaternium-80 (Abil Quat 3272)	0.40
Phase D:	
Dimethicone Copolyol (Abil B 8851)	0.25
Sodium Chloride - 25% aqueous solution	0.60
Phase E:	
Color, Fragrance, Preservatives	Q.S.

Procedure:

1. Heat the water to 70C. Add and disperse the Citric Acid.
2. Add the ingredients of Phase B to Phase A, one at a time, mixing between additions. After all additions are made, mix until homogeneous.
3. Cool batch to 40C. Mix Phase C and add to A/B. Use sweep mixer.
4. Add remaining ingredients. Mix until uniform using sweep mixer.

Acidic Hair Rinse

Gives permed and dyed hair a soft smooth tactile feel and gloss.

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	4.0
Phase B:	
Water	73.8
Glycerin	2.0
Citric Acid (10%)	0.2
Phase C:	
Hydroxyethylcellulose (2.5% aqueous solution)*	20.0
Phase D:	
Perfume	Q.S.
Preservative	Q.S.

*Natrosol 250 HR

Procedure:

1. Heat Phase A and B to 70C, stir B into A and homogenize.
2. Add the Hydroxyethylcellulose and homogenize again. Stir until the emulsion is cool (30C).
3. The perfume is added at 30C.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Conditioner**Formulating Design and Advantages:**

This formula incorporates a mixture of amino acids from the Silk'n Soluble Liquid (Dacso). These amino acids have a good affinity for hair, especially when bleached and damaged, leaving your hair smooth and silky.

Water Phase I:	<u>Wt%</u>
Water (Distilled)	64.0
Butylene Glycol (Hoechst)	4.0
Glycerine (Unichema)	2.0
Silk'n Soluble Liquid (Dasco)	0.3
Cellose (Hercules)	0.3
Methylparaben (Sutton)	0.3

Oil Phase:	
Cera Bellina (Pg-3 Beeswax, Koster Keunen)	3.5
Minosil (Pride Solvents)	3.5
Glycerol Monostearate (Henkel)	2.0
Amerchol L 101 (Amerchol)	1.5
Vitamin E (Phibro Chem)	0.5
Propylparaben (Sutton)	0.1

Water Phase II:	
Water (Distilled)	17.0
Triethanolamine (Dow)	1.0

Procedure:

Heat the water phase I to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase until homogeneous and a temperature of 75C is maintained. Slowly add the water phase I to the oil phase under moderate agitation. Allow to cool to 55C and add water phase II. Continue mixing and cool until at room temperature.

Adaptation of Formula and Its Influence on the Product:

Other active compounds and conditioning agents are easily introduced into this type of formula. Consistency is easily increased by using a greater concentration of Cera Bellina. This will also combine to increase the conditioning properties of the product.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hair Conditioner with DLL

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Procol CS-20 D	2.000g
2 AEC Cherry Pit Oil	0.500g
Aqueous Phase:	
3 Water; Pure	87.850g
4 Natrosol 250 HR	0.500g
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	2.000g
6 AEC Dicetyldimonium Chloride	3.000g
7 Propylene Glycol USP	3.000g
8 Germaben 11-E	0.500g
Cooling Cycle:	
9 D-Panthenol 75%	0.500g
10 Fragrance; Cherry AG6330	0.150g
11 Colours as required	g

Mixing Instructions:

Disperse the Hydroxyethyl Cellulose in water and bring to 70C while adding the remaining items of the Aqueous Phase.

Separately heat the Oil Phase to 70C and with high shear mixing add the Oil Phase to the Aqueous, mix briefly then stir until cool.

Add Panthenol and fragrance and adjust the pH to 5.0-5.5 with citric or phosphoric acid.

Colour as required.

This simple formula may be readily adapted to take herbal additives, soluble proteins and other active ingredients.

Project: JW 2390/Formula Ref.: 817*2

Hair Conditioner with DLL

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Cetearyl Alcohol	3.000g
2 Emulgade 1000 NI	1.500g
Aqueous Phase:	
3 Water; Pure	91.700g
4 Natrosol 250 HR	1.000g
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	2.000g
6 Germaben 11-E	0.500g
Cooling Cycle:	
7 P.AG 9960 Fruity Floral for hair	0.150g
8 Phosphoric Acid	0.150g
9 Colours as required	g

Mixing Instructions:

Disperse the Hydroxyethyl Cellulose in water and bring to 70C.

Separately heat the Oil Phase to 70C and with high shear mixing add the Oil Phase to the Aqueous, mix briefly then stir until cool.

Add Fragrance, Preservative and colour as required and adjust the pH to 5.0-5.5.

This simple formula may be readily adapted to take herbal additives, soluble proteins and other active ingredients as required.

Project JW 2390/Formula Ref.: 815*2

SOURCE: A & E Connock Ltd.: Suggested Formulations

Hair Conditioner with DLL

<u>Material:</u>	<u>%w/w</u>
Water; Pure	87.850
AEC Dicetyldimonium Chloride	3.000
Propylene Glycol USP	3.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	2.000
Procol CS-20D	2.000
D-Panthenol 75%	0.500
Natrosol 250 HR	0.500
AEC Cherry Pit Oil	0.500
Germaben 11-E	0.500
Fragrance; Cherry AG6330	0.150
Colours as required	

Formula Ref.: 817*2

Hot Oil Conditioner with CPO

<u>Material:</u>	<u>%w/w</u>
Water, Pure	85.440
Incroquat SDQ-25	3.000
Propylene Glycol USP	3.000
Lexamine S-13	2.220
Colours as required	2.000
Emulgade 1000 NI	1.000
AEC Cherry Pit Oil	1.000
Natrosol 250 HR	0.750
D-Panthenol 75%	0.500
Germaben 11-E	0.500
Citric Acid BP	0.440
Fragrance; Cherry AG6330	0.150

Formula Ref.: 816*1

Hair Conditioner with DLL

<u>Material:</u>	<u>%w/w</u>
Water; Pure	91.700
Cetearyl Alcohol	3.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	2.000
Emulgade 1000 NI	1.500
Natrosol 250 HR	1.000
Germaben 11-E	0.500
Phosphoric Acid	0.150
P. AG 9960 Fruity Floral for Hair	0.150
Colours as required	

Formula Ref.: 815*2

SOURCE: A & E Connock Ltd.: Suggested Formulations

Hair Cream Gel

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Ceteareth-12	10.00
A	Ceteareth-20	10.00
A	PEG-7 Glyceryl Cocoate	10.00
A	Oils of Aloha Macadamia Nut Oil	5.00
A	Glycerine	10.00
A	Deionized Water	54.00
B	Preservative	QS
B	Perfume	1.00

Manufacturing Procedure:

Phase A: Combine ingredients at 95C. Cool to 40C.

Phase B: Add preservative and fragrance.

Used to firm the hair and to give it a beautiful sheen.

SOURCE: Oils of Aloha: Suggested Formulation

Hair Gel

<u>Phase#:</u>	<u>Ingredients:</u>	<u>Wt%</u>
1	Deionized water	18.00
1	Glycerine	2.00
1	SD 40 Alcohol	10.00
1	Disodium EDTA	0.05
1	Colorona Bordeaux	5.00
2	1% Carbopol 941 solution	50.00
3	Triethanolamine 99%	0.75
3	Deionized water	2.20
4	SD 40 Alcohol	10.00
4	PVP/VA E-735	2.00

Procedure:

Combine phase #1 with propeller agitation. When homogeneous, add the remaining phases in order.

SOURCE: Rona/EM industries, Inc.: Formulation EM3-57-2

Hair Repair and Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	88.10
Glyceryl Stearate S.E. (Tegin)	4.00
Mineral Oil	1.00
Cetyl Alcohol	2.00
Phenyl Trimethicone (Abil AV-20)	0.50
Ceteth-2	1.00
Phase B:	
Glycerin	1.00
Propylene Glycol	1.00
Dimethicone/Sodium Poly PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Phase C:	
Color	Q.S.
Preservatives	Q.S.
Fragrance	Q.S.
Citric Acid (25% solution)	to pH 7.2
Procedure:	
1. Heat the ingredients of A together with mixing to 70C.	
2. Cool to 45-50C. Switch to sweep mixer.	
3. Blend B. Add to A. Sweep mix. Cool to 35-40C.	
4. Adjust pH. Add Color, Fragrance and Preservatives.	

Conditioning Hair Rinse for Oily Hair

Provides refatting, moisturizing and reduces static fly-away of hair. Soft conditioning.

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	4.0
Phase B:	
Water	71.5
Dimethicone Copolyol (Abil B 8852)	1.0
Propylene Glycol	3.0
Citric Acid (10%)	0.2
Quaternium-80 (Abil Quat 3272)	0.3
Phase C:	
Hydroxyethylcellulose (2.5% aqueous solution)*	20.0
Phase D:	
Perfume	Q.S.
Preservative	Q.S.
*Natrosol 250HR	

- Procedure:**
1. Heat Phase A and B to 70C, stir B into A and homogenize.
 2. Add the Hydroxyethylcellulose and homogenize again. Stir until the emulsion is cool (30C).
 3. The perfume is added at 30C.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Shaping Gloss

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Volpo 10 (Croda)	9.00
Crodafos N3N (Croda)	3.20
Crodafos N10N (Croda)	2.50
Crodamol PTC (Croda)	0.80
Blandol Mineral Oil (Witco)	12.00
Parsol MCX	0.60
Propyl Paraben	0.15
Aqueous Phase:	
Volpo S-20 (Croda)	1.50
Glycerine	9.00
Propylene Glycol	1.40
Methyl Paraben	0.30
Germall 115	0.20
Deionized Water	58.85
Protein Phase:	
Cromoist HYA (Croda)	0.25
Kerasol (Croda)	0.25

Procedure:

Heat oil phase to 80-85C, heat aqueous phase to 85C. Add aqueous phase to oils under good mechanical agitation. Cool to 45C, add proteins. Fill off.

Conditioning, Setting Gel

<u>Formula:</u>	<u>% by Weight</u>
A:	
Isoceteth-20	20.0
Blandol Mineral Oil (Witco)	11.0
Oleth-2	6.0
B:	
Water	49.6
Sorbitol Solution, USP	7.0
Propylene Glycol	5.0
Soyaethyl Morpholinium Ethosulfate	1.4

Procedure:

Heat A and B to 90C. Add B to A with gentle stirring. Cool to 80C and add make-up water. Stir until uniform and pour while still fluid.

SOURCE: Witco Corp.: Suggested Formulations

Hair Straightener

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Carnation Mineral Oil (Witco)	11.00
White Protopet 1S (Witco)	11.00
Lipowax NI	16.00
Lipocol C	1.00
Lipocol S-2	0.50
Water Phase A:	
Deionized Water	50.00
Lipocol S-20	1.50
Lipolan 31	2.00
Propylene Glycol (Arco)	2.00
Sipon 201-10 (Alcolac)	0.25
Water Phase B:	
Lithium Hydroxide Monohydrate	3.50
Deionized Water	1.25

Procedure:

Combine all ingredients in oil phase in main kettle and heat to 75C. Combine A in side kettle and heat to 75C. Add A to Oil Phase at 75C with constant agitation. Cool to 65C with mixing and sprinkle in lithium hydroxide from B. Cool to 50C and add cold water from B. Cool to 42C and fill. Reducing Lipowax NI level to 12% results in softer cream.

Hair Relaxer

<u>Formula:</u>	<u>% by Weight</u>
A:	
Blandol Mineral Oil (Witco)	12.0
Macol 124	11.0
Cetyl Alcohol	2.0
PEG-75 Lanolin	3.0
B:	
Water	28.0
Propylene Glycol	5.0
Avanel S-150	3.5
Calcium Hydroxide	10.0
C:	
Water	25.0
Xanthan Gum (Kelco-Merck)	0.5

Procedure:

Blend A ingredients, heat slowly to 70C. Premix B and heat to 70C; add slowly to A with high shear, forming the emulsion. Premix C, heating to 55C. When uniform add to main batch with high shear. Cool while maintaining sweep agitation. Package at 35-40C.

SOURCE: Witco Corp.: Suggested Formulations

Hair Styling Cream (for dried hair)

<u>Ingredients:</u>	<u>% by Weight</u>
Phase 1:	
Lanocerin	12.00
Estol EHP	8.00
Crodacol CS-50	6.00
Standapol WAQ-Special	5.00
Petrolatum	5.00
Crodacol C-95	2.00
Lipocol C-10	1.00
Incrocas-40	1.00
Ozokerite Wax	1.00
Lipocol S-10	0.75
Carnauba Wax	0.50
Phase 2:	
Distilled Water	40.41
Propylene Glycol	4.00
Amphomer	2.00
AMP-95	0.34
Phase 3:	
Ethanol, SDA-40	10.00
Germaben II	1.00

Procedure:

Combine ingredients in Phase 1. Heat to 80C. Combine all ingredients of phase 2, except for Amphomer. With vigorous agitation, heat ingredients to 60C. Slowly sift in Amphomer. Bring heat to 80C. Combine ingredients of Phase 1 with ingredients of Phase 2. Mix for 15 minutes. Cool to 50C. Add ingredients of Phase 3. Mix for 10 minutes. Pour into container. Allow to cool.

Formulation PF-0353 suggested by National Starch & Chemical Corp. (8334-66)

Resyn Hair Spray with Dimethicone Copolyol

This hair spray contains Dow Corning 193 surfactant which plasticizes the resin. This formulation shows how silicone glycols can be used in Resyn-based hair sprays. Dow Corning Q2-5220 resin modifier can be substituted for Dow Corning 193 surfactant.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 193	0.50
Resyn 28-3307	3.00
AMP Regular	0.28
SD Alcohol 40	76.22
Propellant A-46	20.00

Procedure:

Dissolve the Resyn into the ethanol. Add the AMP. Add Dow Corning 193 surfactant. Stir until uniform. Add fragrance if desired.

Aerosol Filling:

Load the concentrate (80% by weight) and fill with A-46 hydrocarbon propellant (20% by weight).

Stability:

The stability of this formulation has not been assessed.

Formulation PF-0363 suggested by Dow Corning Corp. (E2-5285)

SOURCE: Angus Chemical Corp.: Product Formulary

High Performance Creme Rinse Conditioner

The dual action of the Crodafos CES and the Incroquat Behenyl TMS in this formulation give excellent conditioning to hair.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.00
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	1.00
Propyl paraben	0.10
Volpo S-2 (Steareth-2)	0.50
Crodacol C-70 (Cetyl Alcohol)	2.00
Crodamol PTIS (Pentaerythrityl Tetraisostearate)	1.00

Part B:	
Deionized Water	87.98
Incromectant Lamea (Acetamide MEA (and) Lactamide MEA)	1.00
Methyl Paraben	0.10

Part C:	
TEA 99%	0.32

Procedure:

Combine ingredients of Part A with mixing and heat to 65-70C. Combine ingredients of Part B with mixing and heat to 65-70C. Add Part B to Part A with mixing and cool to 40C. Continue mixing and add Part C. Cool to desired fill temperature.

pH=4.50±0.5

Viscosity=56,000±10% (RVT Spindle, #T-D, 10 rpm, @ 25C)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-178-1

Hair Shine Concentrated Gel

<u>Ingredients:</u>	<u>%w/w</u>
Water	25.45
Abil OSW-12	27.27
Abil AV-20	4.55
Propylene Glycol	35.00
Hexylene Glycol	4.55
Preservatives	Q.S.
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	3.18

Procedure:

Blend the ingredients together in the order given with mixing. When all ingredients are combined, continue mixing until clear. Viscosity will develop after mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

High Performance 80% VOC Non-Aerosol Hair Spray

This high solids 80% VOC non-aerosol hair spray combines low solution viscosity, a fine, misty spray and optimal drying time with a hard hold and good humidity resistance.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Lovocryl-47	8.00
AMP Regular	1.61
Citroflex-2	0.20
Crotein ADW	0.10
dl-Panthenol	0.05
Purcellin Oil	0.05
Deionized Water	9.99
Anhydrous Ethanol, SDA-40	80.00

Valve Specifications:	Calmar Mark II Valve	
	Head: WS	Inductor: 6 1/4"
	SPV: 302 SS	ACM: 1 BLIP
	GSK: 05744	

Preparation:

Dissolve AMP in water and ethanol. While maintaining good agitation, slowly sift in Lovocryl-47. Once dissolved, add balance of ingredients and mix until homogeneous. Filter and fill.

Formulation 7974:115

Ultra-Hold Finishing Spray

This anhydrous aerosol hair spray has a stiff hold with excellent humidity resistance, compatibility with a wide variety of additives and excellent subjective properties on hair.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Resyn 28-2930	5.40
AMP Regular	0.54
DC Q2-5220	0.20
Phospholipid EFA	0.20
TEA Salicylate	0.05
Monamid 716	0.10
Fragrance	q.s.
Anhydrous Ethanol, SDA-40	68.51
Propellant A-46	25.00

Preparation:

Dissolve AMP in ethanol. While maintaining good agitation, slowly sift Resyn 28-2930 into the vortex. When the solution is complete, add remaining ingredients and mix until homogeneous. Filter and fill concentrate. Charge with propellant.

Formulation 6472:146

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Hot Oil Conditioner with CPO

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	85.440g
2 Natrosol 250 HR	0.750g
3 Germaben 11-E	0.500g
Stage B:	
4 Incroquat SDQ-25	3.000g
5 Emulgade 1000 NI	1.000g
6 AEC Cherry Pit Oil	1.000g
7 Propylene Glycol USP	3.000g
8 Citric Acid BP	0.440g
9 Lexamine S-13	2.220g
Cooling Cycle:	
10 D-Panthenol 75%	0.500g
11 Fragrance; Cherry AG6330	0.150g
12 Colours as required	2.000g

Mixing Instructions:

Disperse the Hydroxyethyl Cellulose in water and bring to 70C. Separately heat the Oil Phase to 70C and with high shear mixing add the Oil Phase to the Aqueous, mix briefly then stir until cool.

Add Fragrance, Preservative and colour as required and adjust the pH to 5.0-5.5.

This simple formula may be readily adapted to take herbal additives, soluble proteins and other active ingredients as required.

SOURCE: A & E Connock Ltd.: Project: JW 2335/Formula Ref. 816*1

Hair Straightener

Panalane's function is to reduce scalp burn while providing emollience and spreadability. Yet it has a less greasy feeling on the skin than other oils used in this type of product. Panalane is stable at the high pH required for this application.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	56.00
1	Propylene Glycol	2.00
1	Uniphen P-23	1.00
2	Lipowax P	15.00
2	Petrolatum White	8.00
2	Panalane L-14E	10.00
3	Sodium Hydroxide (25% soln)	8.00

Procedure:

1. Combine and heat Sequence #1 and Sequence #2 separately to 75C
2. Add Sequence #2 to Sequence #1 with rapid mixing.
3. Cool to 40C before adding Sequence #3.
4. Cool to room temperature and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 825

Modern Expression Hair Mask

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	70.01
Pluracare F127	20.00
Luviquat Mono CP	1.00
D-Panthenol 50 P	2.00
Luviskol VA 73 W	1.00
Dow Corning 193 Polyether	0.50
Hydrolyzed Wheat Protein	0.70
Solu-Soy EN25	0.30
Nipaguard DMDMH	0.50
AMP-95	0.49
Tenox BHT (10% in SD Alcohol)	1.00
B. Cremophor RH 40	0.35
Fragrance	0.15
C. Luvimer 100 P	2.00

Procedure:

Using cold water for phase A (40-10C) slowly add the Pluracare to the water and mix until the solution is homogeneous.

Add the remaining ingredients of A to the Pluracare solution.

Combine Phases B and C separately.

Maintain the phase A temperature below 10C and add phases B and C to A.

Transfer the mixture to appropriate containers and allow to warm up to room temperature, whereupon the liquid becomes a ringy gel.

Formulation PF-0397 suggested by BASF (SG1103/2)

Spiking Spritz

This spiking spritz contains Dow Corning 190 surfactant, which reduces tackiness and provides a light, nongreasy feel.

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol (190 proof)	91.90
Dow Corning 190 Surfactant	1.00
AMP-Regular	1.10
Amphomer	6.00

Procedure:

Mix in order.

Stability:

3 months at 40C

6 months at room temperature

Formulation PF-0367 suggested by Dow Corning Corp. (E8239-21)

SOURCE: Angus Chemical Co.: Product Formulary

Non-Aerosol Finishing Spray

A light, holding spray that provides a conditioning sheen through the use of Phospholipid EFA.

	<u>% By Weight</u>
SD Alcohol 40	94.10
Vinyl Acetate/Crotonic Acid Copolymer	3.75
Water	1.20
Phospholipid EFA	0.60
Aminomethyl Propanol	0.35

Add vinyl acetate/crotonic acid copolymer to alcohol slowly with adequate agitation, mix until well dispersed. Add aminomethyl propanol to neutralize, and mix until dissolved. Add remaining ingredients, color, fragrance and package.

Finishing Spray

	<u>% By Weight</u>
SD Alcohol 40	94.10
Resyn 28-1310	3.75
Water	1.20
Aminomethyl Propanol	0.35
Phospholipid EFA	0.60

Procedure:

Add Resyn 28-1310 to alcohol slowly with adequate agitation, mix until well dispersed. Add aminomethyl propanol to neutralize, and mix until dissolved. Add remaining ingredients color, fragrance and package.

Replenishing Creme Rinse

	<u>% By Weight</u>
Water	87.80
Hydroxyethyl Cellulose	0.70
Glycol Distearate	2.00
Cetearyl Alcohol	2.50
Monaquat TG	6.70
Phospholipid EFA	0.30

Procedure:

Charge water, carefully add Natrosol 250 HHR with good agitation. Heat to 50-60 and add remaining ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5 to 5.0. Add color, fragrance and preservative as required. Continue agitation and cooling until pearl develops.

Formula F-577

SOURCE: Mona Industries, Inc.: Suggested Formulations

Pelan Hair Conditioner

This product employs humectants, emollients and natural conditioners such as Pelan Black and Lipoquat R which soften and enrich the hair, leaving a healthy shine.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Deionized Water	79.00
1	Keltrol	0.30
3	Liponic EG-1	2.00
3	Uniphen P-23	0.50
4	Pelan Black	8.00
5	Lipocol C	1.50
5	Lipo GMS-450	1.25
5	Liponate SPS	1.00
5	Lipowax D	1.00
5	Lipopeg 6000 DS	1.00
5	Liponate IPP	0.75
5	Lipowax P	0.75
5	Lipocol S	0.65
5	Liponate DPC-6	0.50
5	Vitamin E Acetate	0.50
6	Deionized Water	1.00
6	Lipoquat R	0.30

Procedure:

1. Heat Sequence #1 to 76C.
2. Add Sequence #2 to Sequence #1 slowly on overhead mixer at medium/high speed.
3. Once Sequence #2 is completely hydrated, add Sequence #3 in order of addition, while holding temperature at 76C.
4. Add Sequence #4 to batch under homogenization at low/medium speed while holding temperature at 76C.
5. Heat Sequence #5 to 78C, until clear, then add to batch under homogenization at low/medium speed.
6. At room temperature, premix Sequence #6 and add to heated batch on homomixer at low speed for 20-30 seconds.
7. Switch to overhead mixer at low speed while cooling to room temperature.

Specifications:

pH: 5.2+-0.2

Viscosity: 27,900+-10% LVT #3 @ 3.0 rpm

SOURCE: Lipo Chemicals Inc.: Formulation No. 946

Pomade**Formulating Design and Advantages:**

This anhydrous product has been formulated for low cost and still have good functional properties toward hair.

Formula:	<u>% by Weight</u>
Perfecta Petrolatum (Witco)	32.00
Mineral Oil USP (Kaydol-Witco)	51.55
Emulsifying Wax NF (Koster Keunen)	6.00
Ceresine Wax 130/135 (Koster Keunen)	8.00
Vitamin E (BASF)	0.20
Deodorized Orange Wax (Koster Keunen)	2.00
D & C Red #17 Dye (Whittaker)	0.05
Coconut Fragrance Oil (Aroma Tech)	0.20

Procedure:

Add all ingredients except fragrance into a vessel, heat till 70C and mix. Once homogeneous, allow to cool while mixing. Add fragrance at 50C and pour into container.

Adaptation of Formula and Its Influence on the Product:

Substitution of the dye and/or fragrance will not alter product consistency. Additional actives may be incorporated to fit consumer's needs.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hair Straightener

Formula:	<u>% by Weight</u>
A:	
Deionized Water	56.00
Propylene Glycol	2.00
B:	
Polawax	15.00
White Protopet 1S Petrolatum (Witco)	8.00
Hydrogenated Polyisobutene	10.00
C:	
Sodium Hydroxide (25% sol.)	8.00
D:	
Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben (Sutton)	1.00

Procedure:

Combine and heat water phase A and oil phase B separately to 75C. Add the oil phase to the water phase with rapid mixing. Cool to 40C before adding C and D. Cool to room temp. and package.

SOURCE: Witco Corp.: Suggested Formulation

Premium Biodegradable Hair Conditioner

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Hydroxyethyl Cellulose	0.70
Sodium Hydroxide (50%)	Q.S.
Ammonyx GA-90/GA-70PG	2.22/2.86
Kessco Cetyl Alcohol	2.00
Kessco Octyl Isononanoate	2.00
Potassium Chloride	0.50
Citric Acid (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.

Mixing Procedure:

Into a suitable vessel equipped with heating, cooling, and agitation means, add D.I. Water. Begin mixing. Into a vortex, sprinkle in Hydroxyethyl Cellulose. Add Sodium Hydroxide to raise the pH to 7.5-8.0 and continue agitation until all of the Hydroxyethyl Cellulose has dissolved (30-40 minutes). Heat to 70-75C. Add Ammonyx GA-90 or GA-70PG, Kessco Cetyl Alcohol, and Kessco Octyl Isononanoate. Emulsify for 30 minutes and maintain the temperature between 70-75C. Cool to 38-48C and add Potassium Chloride dissolved in water. Adjust final pH (3.5-4.5) with citric acid, if necessary. Cool to ambient temperature with continuous mixing, add remaining ingredients.

Ethnic Hair Shine

	<u>% by Weight</u>
Dow Corning Silicone 245	70.0
Kessco Octyl Isononanoate	25.0
Octyl Methoxycinnamate	5.0

Mixing Procedure:

Combine all ingredients with mixing.

SOURCE: Stepan Co.: Suggested Formulations

Pump Hair Spray

Pump Hair Spray based on the well-known Gantrez ES-225, contains Dow Corning 3225C Formulation aid which functions in two ways. First, the cyclomethicone component provides lubricity for the initial styling and combing. Second, the dimethicone copolyol component remains behind after all the volatiles are gone, to provide easy combing. Dow Corning 3225C also acts as a resin plasticizer and detackifier.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 3225C Fluid	1.00
Gantrez ES-225	6.90
AMP-Regular	0.20
SD Alcohol 40	91.90

Procedure:

Weigh out the alcohol and dissolve the AMP into it. Stir in the resin and the Dow Corning 3225C formulation aid. Mix until uniform and add fragrance if desired.

Stability:

The stability of this formulation has not been assessed.
Formulation PF-0366 suggested by Dow Corning Corp. (E2-3287)

Flexible Spray Gel

Highly shear thinning due to the copolymer thickener in Phase B.

<u>Ingredients:</u>	<u>% by Weight</u>
<u>Part A:</u>	
Water	79.94
Ethanol	6.00
Disodium EDTA	0.10
AMP-95	0.62
Kathon CG	0.04
Citroflex-2	0.10
Acudyne 255, 41%	10.00
<u>Part B:</u>	
Aculyn 22	3.20

Procedure:

Combine A in order shown. Stir until clear. Add B. Stir until thickened.

Properties:

Viscosity (#4 at 60 rpm): 400 cps
Formulation PF-0369 suggested by Rohm & Haas.

SOURCE: Angus Chemical Co.: Product Formulary

Salon Type Hair Conditioner

State of the art protein/panthenol based conditioner designed for achievement of salon type performance.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita CA (Cetyl Alcohol)	5.00
2. Rita STAC-80 (Steartrimonium Chloride)	2.50
3. Rita CTAC-605 (Cetrimonium Chloride)	0.50
4. Citric Acid @ 50%	0.18
5. Dimethyl Stearamine (Adogen MA-108)	0.13
6. Distilled/Deionized Water	85.84
7. Amanduline SG (Sweet Almond Protein)	2.00
8. Ritaloe 200M (Aloe Vera Gel)	0.50
9. Ritapan DL (dl-Panthenol)	1.00
10. Propylene Glycol	0.50
11. Polyquta 400 (Polyquaternium-10)	1.00
12. Kathon CG	0.03
13. Dow Corning 7224	0.40
14. Dow Corning 344 Fluid	0.17
15. Fragrance	0.25

Compounding Procedure:

Disperse item 11 in item 6 while mixing. Heat to 70C. Add items 8, 9, 10 and 13. Combine items 1, 2, 3 and 5 and heat to 70C. Add to water phase. Add item 4 and mix while cooling. Add items 7, 12, 14 and 15 when cool.

Ref. No. 121-177

Pump Spray Hair Conditioner

A pump spray conditioner containing Polyquta 400, Ritasil 190 and Amanduline SG for conditioning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	89.60
2. Polyquta 400 (Polyquaternium-10)	0.50
3. Amanduline SG (Hydrolyzed Sweet Almond Protein)	5.00
4. Ritasil 190 (Dimethicone Copolyol)	1.00
5. Propylene Glycol	3.50
6. Glydant	0.20
7. Fragrance	0.20

Compounding Procedure:

Disperse item 2 in item 1. Heat if necessary. Allow to cool and add items 3-7. Mix until uniform.

Ref. No. 121-181

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Soft Set Conditioning Mousse

This conditioning mousse formulation provides for both a soft, nontacky hold to a hair set and a conditioning effect on the hair fibers. The Sodium Poly PG-propyl Dimethicone Thiosulfate contributes gloss and hydrophobicity to the hair.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Water	82.20
Stearamidopropyl PG-dimonium chloride phosphate	3.00
Part B:	
Isopropyl Alcohol	10.00
Sodium Poly PG-propyl Dimethicone Thiosulfate (Abil S-201)	0.50
AMP-95	0.30
Butyl Ester of PVM/MA copolymer	2.00
Part C:	
Dimethicone Copolyol (Abil B 8851)	2.00
Part D:	
Fragrance, Preservatives	q.s.
Fill:	
Concentrate	83.30
Isobutane	16.70

Procedure:

Mix A. Heat to 65C and continue to mix until homogeneous. Cool to 40C. Separately mix B at 25C until homogeneous. Add A to B with stirring. Add C and D, mix until homogeneous. Add fragrance, coloring and preservative as required. Cool to 25C. Charge into aerosol container. Add propellant.

Formulation PF-0237 suggested by Goldschmidt Chemical Corp.

Styling/Conditioning Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Water, deionized	74.15
Mulgofen ON-870	0.10
Gafquat HS-100	10.00
Dimethicone polyol	0.40
Phase B:	
Ethanol	10.00
Advantage CP	5.00
AMP Regular	0.35
Aerosol Fill:	
Concentrate	90-95
Propane/butane	5-10

Procedure:

Prepare Phase A by dissolving Mulgofen in water. Add remaining ingredients in order listed, stir thoroughly after each addition. Prepare Phase B by dissolving AMP Regular in ethanol. Then add Advantage CP, mix until uniform. Add perfume with stirring. Add Phase B to Phase A with stirring. Mix until uniform. Charge aerosol containers and pressurize with propellant.

Formulation PF-0240E suggested by ISP

SOURCE: Angus Chemical Corp.: Product Formulary

Strong Advantage Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	81.50
Luviquat Mono CP	1.00
D-Panthenol 50P	0.32
Dow Corning 193 Polyether	1.00
Hydrolyzed Wheat Protein	0.20
Nipaguard DMDMH	0.50
AMP-95	0.98
B. Luvimer 100 P	4.00
C. Cremophor RH 40	0.30
Lipopeg 6000 DS	0.10
Fragrance (Hair Monster U800 025)	0.10
D. Propellant A46	10.00

Procedure:

Combine all ingredients in phase A and mix until homogeneous.
 Add phase B to A and mix.
 Add C to AB and mix.
 Fill into appropriate containers with propellant.

Formulation PF-0396 suggested by BASF (SG1099/2)

Shape N' Style Volumizing Spritz

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	82.00
Deionized water	7.41
Luviskol VA 73 E	4.00
D-Panthenol USP	0.50
Uvinul MC 80	0.10
AMP-95	0.49
Fragrance	q.s.
B. Luvimer 36 D	5.50

Procedure:

Combine phase A ingredients in order listed, mixing after each addition.
 Add B to A and mix.

Formulation PF-0394 suggested by BASF (ND546/1)

SOURCE: Angus Chemical Co.: Product Formulary

Vision '98 55% VOC Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	58.00
Deionized water	23.87
D-Panthenol USP	0.50
AMP-95	1.13
Dow Corning 190 Surfactant	0.10
Luvimer Low VOC	16.20
B. Fragrance	0.20

Procedure:

Combine phase A ingredients in the written order under mixing.
Add B to A and mix well.

Formulation PF-0400 suggested by BASF Corp. (ND6098/1)

Vision '98 55% VOC Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	58.00
Deionized water	14.35
D-Panthenol USP	0.50
AMP-95	1.70
Dow Corning 190 Surfactant	0.20
Luvimer Low VOC	25.00
B. Fragrance	0.25

Procedure:

Combine phase A ingredients in the written order under mixing.
Add B to A and mix well.

Formulation PF-0401 suggested by BASF Corp. (ND6098/2)

SOURCE: Angus Chemical Co.: Product Formulary

Vision '98 Pump Hairspray - 55% VOC - 6% Solids

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Deionized Water	23.50
SD Alcohol 40, 190 proof	58.00
D-Panthenol	0.50
AMP-95	1.50
Dow Corning 190 Surfactant	0.10
Luvimer Low VOC	16.20
Phase B:	
Fragrance (Balsam HF-F-95-14276)	0.20

Procedure:

Combine phase A ingredients in the written order.
Add B to A and mix well.

Packaging:

Milan Oval Bottle (Calpac Container Corp.)
Air Force II Pump (Emerson Corp.)

Formulation PF-0348 suggested by BASF Corp. (ND6037/1)

Forever Curls Hair Spray

Particularly effective for curl retention, this pump spray keeps curls beautifully in place. By giving hair more body and adding lubricity, Hydrotriticum QL enhances the hold and keeps hair feeling soft and smooth. Crovol A-70 is used here as a solubilizer and plasticizer.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
SDA-40 Alcohol	63.50
Amphomer 28-4910	0.75
Part B:	
Deionized Water	33.62
Crovol A-70	1.00
AMP-95	0.13
Part C:	
Hydrotriticum QL	1.00

Procedure:

Combine ingredients of Part A by dusting Amphomer into alcohol with vigorous mixing. Combine ingredients of Part B with mixing. Add Part A to Part B with mixing. When clear, add Part C with mixing and fill.

Formulation PF-0169 suggested by Croda Inc.

SOURCE: Angus Chemical Co.: Product Formulary

Wheat Moisturizing and Styling Gel

Thick, spreadable gel holds, moisturizes, and adds shine and protective proteins to hair.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Polysorbate-20	1.00
PPG-12 PEG-65 lanolin oil (Ivarlan AWS)	2.00
Fragrance	0.20
Part B:	
Glycerin	10.00
Deionized water	22.20
Hydrolyzed wheat protein (Wheat-Tein NL)	1.00
Preservative, color	q.s.
Part C:	
Carbomer 940, 2% aq. soln. (Carbopol 940)	50.00
Part D:	
AMP-95	0.60
Part E:	
Isopropyl Alcohol, 99%	10.00
PVP/PA copolymer (PVP/VA E-735)	2.00
Part F:	
Ethyl ester of hydrolyzed keratin (Kera-tein 1000 AS)	1.00

Procedure:

Premix A until clear. Add B. Mix until homogeneous. Add to C. Add D to ABC. Mixture will clear and thicken. Premix E. Add to batch. Add F; mix.

Formulation PF-0255 suggested by Maybrook

Pump Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Gantrez ES 225	9.00
AMP Regular	0.45
Finsolv TN	0.50
Ethanol	90.05

Procedure:

Dissolve AMP in ethanol. Add the resin with mixing and continue mixing until uniform. Add Finsolv TN and mix.

Formulation PF-0358 suggested by Finetex

SOURCE: Angus Chemical Co.: Product Formulary

W/O Hair Sculpturing Cream

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Hydrogenated Castor Oil	0.50
Microcrystalline Wax	0.20
Petrolatum	1.80
Mineral Oil	7.50
Phenyl Trimethicone (Abil AV 20)	1.00
Octyl Stearate (Tegosoft OS)	2.00
Octyl Palmitate (Tegosoft OP)	2.00
Isopropyl Palmitate (Tegosoft P)	2.00
Phase B:	
Glycerin	2.50
Propylene Glycol	2.50
Preservatives	Q.S.
Water	70.15
Sodium Chloride	0.80
DL-Panthenol	0.40
Hydrolyzed Wheat Protein	0.40
PVP	1.00
Quaternium-80 (Abil Quat 3272)	0.25
Phase C:	
Fragrance	Q.S.
Procedure:	
1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, cool to temperature of 45-50C.	
2. Mix the water and sodium chloride. Heat to 45-50C.	
3. With soft lightnin' mixing, stream the water phase slowly into the oil phase.	
4. With sweep agitation, cool to 35C.	
5. Add color, fragrance and preservatives.	
6. Homogenize with a roto-stator homogenizer.	

Spray Detangler/Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Water	96.50
Tetrasodium EDTA	0.10
Preservatives	Q.S.
Propylene Glycol	1.60
Quaternium-80 (Abil Quat 3272)	0.30
PEG-30 Glyceryl Oleate (Tagat O)	0.45
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.30
Dimethicone Copolyol (Abil B 88183)	0.75
Citric Acid (25% solution)	to pH 4.0
Fragrance	Q.S.
Procedure:	
Add ingredients in order. Adjust pH. Fragrance.	
SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations	

55% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	14.90
Water	38.97
AMP-95	0.33
Omnirez-2000	10.00
Ammonium Hydroxide	0.30
MEA Borate and MIPA Borate	0.40
Dimethyl Ether	35.00

Valve:

Seaquist:	ST-74
Stem:	0.018"
Body:	capillary
V. Tap:	0.015"
ID Tubing:	0.050"
Actuator:	ST-150 Misty
Orifice:	0.023"

Formulation PF-0383 suggested by ISP (10263-11)

Acudyne 255 55% VOC HFC-152a Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	1.80
Ethanol	55.00
AMP-95	0.56
DC 190 Fluid	0.10
B. Acudyne 255 (41%)	12.50
C. Dymel HFC-152a	12.50

Procedure:

Prepare phase A. Then add phase B with stirring. Mix until solution is slightly turbid but active ingredients are dispersed. Add phase C.

Physical Characteristics:

Cloud point: <-22F

Formulation PF-0389 suggested by Rohm & Haas Co. (PF-051)

SOURCE: Angus Chemical Co.: Product Formulary

80% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	57.00
Water	11.13
AMP-95	0.37
Omnirez-2000	16.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
Ammonium Hydroxide	0.10
MEA Borate and MIPA Borate	0.20
Propane/Isobutane blend (A-70)	15.00

Valve:

Precision Aquasol
 Stem: 2 X 0.20"
 Body: .023"
 V.Tap: N/A-chamber 2 X 0.10"
 ID Tubing: 0.060"
 Actuator: Precision
 Orifice: 0.016" CO2

Formulation PF-0379 suggested by ISP (10250-18-1)

80% VOC Single Phase Hydrocarbon Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	37.00
Water	11.13
AMP-95	0.37
Omnirez-2000	16.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
Ammonium Hydroxide	0.10
MEA Borate and MIPA Borate	0.20
Dimethyl Ether	35.00

Valve:

Seaquist ST-74
 Stem: 0.018"
 Body: capillary (under development)
 V.Tap: 0.013"
 ID Tubing: 0.030"
 Actuator: ST-150 Misty
 Orifice: 0.020"

Formulation PF-0380 suggested by ISP (10250-18-2)

SOURCE: Angus Chemical Co.: Product Formulary

55% VOC Innovative Product Formulation

<u>Ingredients:</u>	<u>% by Weight</u>
Lovocryl 47	10.00
AMP-95	1.73
Monamid 716	0.15
Varion CADG LS	0.10
DC 556	0.10
Purcellin Oil	0.15
Deionized Water	7.77
Ethanol, SDA-40	50.00
Fragrance	q.s.
n-Butane	12.00
Dimethyl ether	18.00

Procedure:

Dissolve AMP-95 in ethanol and water. While maintaining good agitation, slowly sift in Lovocryl 47. When solution is complete, add remaining ingredients. Mix until homogeneous. Filter and fill. Charge cans with propellant.

Valve:

Seaquist Valve: NS-34
 Stem Orifice: 0.013"
 Dip Tube: 0.040"
 Body: Capillary
 Vapor Tap: 0.013"
 Actuator: Excel 200 0.013" Misty

Formulation PF-0352 suggested by National Starch & Chemical Corp. (7879-1221)

Aerosol Finishing Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 200 proof	55.16
D-Panthenol 50P	1.00
AMP Regular	0.74
Fragrance	0.10
B. Luvimer 100P	3.00
C. HFC 152a	40.00

% VOC: 55%

Procedure:

Combine phase A.
 Sprinkle B into A and mix well.
 Fill into appropriate containers with propellant.

Formulation PF-0399 suggested by BASF Corp. (ND538/1)

SOURCE: Angus Chemical Corp.: Product Formulary

80% VOC Innovative Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	44.36
AMP-95	0.44
Omnirez-2000	20.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
152A HFC propellant	15.00
Dimethyl Ether	20.00

Valve:

Seaquist:	ST-74
Stem:	0.010"
Body:	capillary
VaporTap:	0.010"
ID Tubing:	0.030"
Actuator:	ST-150 Misty
Orifice:	0.020"

Formulation PF-0381 suggested by ISP (10250-18-8)

55% VOC Innovative Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	44.36
Water	4.06
AMP-95	0.44
Omnirez-2000	20.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
Ammonium Hydroxide	0.10
MEA Borate and MIPA Borate	0.20
152 A HFC Propellant	30.00
Dimethyl Ether	5.00

Valve:

Seaquist:	ST-74
Stem:	0.010"
Body:	capillary
VaporTap:	0.010"
ID Tubing:	0.030"
Actuator:	ST-150 Misty
Orifice:	0.020"

Formulation PF-0382 suggested by ISP (10250-18-9)

SOURCE: Angus Chemical Co.: Product Formulary

Section VII

Lotions

AHA Moisturizing Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Glycerin	5.00
Methyl Paraben	0.15
Ammonyx GA-70 PG	2.85
Neobee M-5 Cosmetic	15.0
Kessco GMS Pure	2.5
Kessco IPM	2.0
Kessco Cetyl Alcohol	2.0
Stearyl Alcohol	1.5
Propyl Paraben	0.01
Glycolic Acid (70%)	7.0-10.0
Preservative, Color, Fragrance	Q.S.
Mixing Procedure:	

Into a suitable vessel equipped with heating, cooling, and agitation, prepare the water phase by adding D.I. Water, Glycerin, Methyl Paraben, and Ammonyx GA-70 PG. Start heating to 70-75C. Into a separate vessel, prepare the oil phase by adding together Neobee M-5 Cosmetic, Kessco GMS Pure, Kessco IPM, Kessco Cetyl Alcohol, Stearyl Alcohol, and Propyl Paraben. Heat to 73-77C. Add the oil phase to the water phase with good agitation. Emulsify for 20-25 minutes at 80-82C. With mixing, start cooling to room temperature. Slowly add Glycolic Acid (70%) at 30C. Mix well. Add Preservative, Color, and Fragrance. Adjust pH to 3.0-3.5 if necessary.

AHA Moisturizing Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Glycerin	1.5
Kessco GMS S.E./A.S.	2.0
Kessco GMS Pure	3.5
Kessco Cetyl Alcohol	1.5
Neobee M-5 Cosmetic	5.0
Kessco ICS	1.5
Glycolic Acid (70%)	7.2
Preservative, Color, Fragrance	Q.S.
Mixing Procedure:	

Into a suitable vessel equipped with heating, cooling, and agitation, prepare the water phase by adding D.I. Water, Methyl Paraben, and Glycerin. Start mixing and heating to 75-80C. Into a separate vessel prepare the oil phase by adding together Kessco GMS S.E./A.S., Kessco GMS Pure, Kessco Cetyl Alcohol, Neobee M-5 Cosmetic, and Kessco ICS. Start heating to 77-82C. Add the oil phase to the water phase with good agitation. Emulsify for 20-25 minutes at 80-82C. With mixing, start cooling to room temperature. Slowly add Glycolic Acid (70%) at 30C. Mix well. Add Preservative, Color, and Fragrance. Adjust pH to 3.5-4.0, if necessary.

SOURCE: Stepan Co.: Suggested Formulations

Anti-Aging Day Lotion

This soft, anti-aging lotion leaves a non-oily, gentle after feel on the skin. Pentavitin improves the water retention and Immucell makes skin smoother and more delicate.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Glucate D0	2.00
2	Glucate SS	1.50
3	Glucam E 20 Distearate	1.50
4	Promulgen D	1.50
5	Isopropyl Palmitate	3.00
6	Sesame Oil	1.00
7	B) Deionized Water	77.30
8	Phenonip	0.30
9	Imidazolidinyl Urea	0.20
10	Glucam E 10	3.00
11	Carbopol 1342	0.20
12	Pentavitin	5.00
13	Immucell	3.00
14	C) Triethanolamine	0.20
15	D) Fragrance-Courage 0/243101	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A). With phase C adjust the pH to 6.0, homogenize and cool to 30C.

Then add phase D) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. C 014.B/09.95

Cationic Lotion with Incroquat Behenyl TMS

Due to the superior emulsifying and conditioning properties of Incroquat Behenyl TMS, only a few basic ingredients are needed to form this stable and elegant lotion. This lotion acquires its soft, powdery afterfeel from the conditioning effects of the Behenyl quat. If desired, emollients, proteins or other such materials can easily be added to the formula to enhance the appeal of the final product.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	83.0
Glycerin	5.0
Part B:	
Mineral Oil (70ssu)	5.0
Petrolatum	2.0
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	4.0
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

Procedure:

Combine ingredients of Part A with mixing and heat to 70-75C. Combine ingredients of Part B with mixing and heat to 70-75C. Add Part B to Part A with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-267

Body Lotion for Sensitive Skin

This pure white and elegant lotion, with a pleasant end feel, contains Dismutin-BT and Phytaluronate. This combination regenerates and protects sensitive or dry skin.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Cremophor A6	1.00
2	Cremophor A25	1.00
3	Luvitol EHO	7.00
4	Paraffin Oil	8.00
5	Cetyl Alcohol	1.00
6	Cutina GMS	2.50
7	B) Deionized Water	71.70
8	Phenonip	0.30
9	Imidazolidinyl Urea	0.20
10	Propylene Glycol	2.00
11	Phytaluronate	5.00
12	C) Dismutin-BT	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.
Heat the ingredients of water phase B) to 75C.
Under stirring add phase B) to phase A), cool to 50C,
homogenize and cool to 30C.
Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. C 004.D/01.96

Cleansing Lotion

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	12.00
Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Imwitor 928 (Glyceryl Cocoate)	5.00
B) Hygroplex HHG (Hexylene Glycol (and) Glucose (and) Fructose (and) Sucrose (and) Urea (and) Dextrin (and) Alanine (and) Glutamic Acid (and) Aspartic Acid (and) Hexyl Nicotinate)	5.00
Keltrol F (Xanthan Gum)	0.80
Preservative	q.s.
Water	Up to 100.00
Fragrance Fleur Blanches	0.30

Preparation:

(A) is heated to 75 degrees C., (B) is mixed homogeneously, brought to the same temperature, and emulsified into (A). Perfume is added at about 35 degrees C.

SOURCE: Huls America Inc.: Formulation 1.3U

Botanical Facial Moisturizing Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Carbopol 934	0.15
Cyclomethicone	0.25
Glycerin	3.50
Methyl Paraben	0.15
Neobee M-5 Cosmetic	2.00
Dreopol 3-1-0	1.50
Petrolatum	1.50
Kessco Cetyl Alcohol	1.00
Stearic Acid T.P.	2.50
Propyl Paraben	0.10
DMDM Hydantoin	0.25
Tetrasodium EDTA	0.10
Triethanolamine	1.65
Avocado Extract	0.01

Mixing Procedure:

Combine water and Carbopol 934 with good mixing, agitate until a thin solution free of lumps is obtained. Add next 3 ingredients and mix until completely dissolved. Heat to 165F. Prepare the oil phase by adding together Neobee M-5 Cosmetic, Dreopol 3-1-0, Petrolatum, Kessco Cetyl Alcohol, Stearic Acid T.P., and Propyl Paraben. Heat to 165-170F. Add the oil phase to the water phase (both at 165-170F) with good agitation. Emulsify for 20 minutes and then begin to cool with slow agitation. At 110F, add DMDM Hydantoin, Tetrasodium EDTA, Triethanolamine, and Avocado Extract. Continue to cool to 90F. At room temperature, adjust pH to 7.0-8.0 if necessary. Check viscosity.

SOURCE: Stepan Co.: Suggested Formulation

Cationic Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	77.25
Glycerine	5.00
Polyquaternium 10	0.75
Varisoft TA-100	1.50
B:	
Adol 52	1.00
Adol 62	3.00
Finsolv TN	2.00
White Protopet 1S (Witco)	1.50
Carnation Mineral Oil (Witco)	1.50
Starfol OS	1.50
DC Fluid 345	1.00
DC Fluid 593	1.50
Varonic 63-E-20	1.00
Varonic LI-67	1.50
C:	
Preservative	q.s.

Procedure:

Mix water, glycerine and Polyquaternium 10 until even. Sprinkle in Varisoft TA-100 with mixing. Continue mixing and heat phase A to 75-80C. Heat phase B to 75-80C. Add phase A to phase B. Cool to 30C with mixing. Add preservative.

Body Lotion: Water in Oil

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Abil-We 09	5.0
Abil-Wax 9800	3.0
Isopropyl Myristate	6.0
Carnation Mineral Oil (Witco)	5.0
PCL Liquid (Dragoco)	4.0
White Fonoline Petrolatum (Witco)	3.0
Water Phase:	
Water	71.2
Glycerol	2.0
Sodium Chloride	0.8
Perfume, Preservative	q.s.

SOURCE: Witco Corp.: Suggested Formulations

Cromoist CM-Glucan Lotion with Crodafos CES

This lotion features Cromoist CM Glucan and Crodafos CES - two high activity ingredients that reflect today's demands for truly functional products. Cromoist CM Glucan works by stimulating the skin's resistance to oxidative stress and improve its level of skin own function. Crodafos CES works by exhibiting shear thinning, producing a system that provides better oil deposition, faster delivery of active ingredients, and enhanced application properties. The lotion itself has a glossy white texture, a lubricious feel and quick rub-in.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.0
Crodacol C-70 (Cetyl Alcohol)	0.5
Volpo S-2 (Steareth-2)	0.1
Volpo S-10 (Steareth-10)	0.5
Part B:	
Triethanolamine (98%)	0.2
Deionized Water	87.7
Part C:	
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

pH=5.0+/-0.5

Viscosity=5,700 cps+/-10% (RVT Spindle TC, 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 70C. Combine ingredients of Part B with mixing and heat to 70C. Add Part A to Part B with mixing. Cool to 45C with mixing. Add ingredients of Part C separately. Continue mixing to desired fill temperature.

SOURCE: Croda Inc.: Suggested Formulation SC-264

Dihydroxyacetone Lotion

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	1.5
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	1.0
Octyl Stearate (Tegosoft OS)	4.0
Isohexadecane	7.0
Hydrogenated Castor Oil	0.4
Beeswax	0.4
Phase B:	
Cyclomethicone	6.0
Phase C:	
Water	72.9
Propylene Glycol	2.0
Sodium Chloride	0.8
Dihydroxyacetone	4.0
Preservatives	Q.S.
Color	Q.S.
Phase D:	
Fragrance	Q.S.

Procedure:

1. Blend the components of Phase A. Heat to 85C in a closed kettle while mixing until all waxes are dispersed.
2. Cool to 40C.
3. Add the Cyclomethicone. Mix.
4. Heat Phase C components to 40C while mixing.
5. Add C to A/B slowly with slow agitation until B is fully dispersed.
6. Add fragrance with slow agitation. 7. Homogenize.

Isolan DO Lotion**O/W Cold Process**

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Methylglucose Dioleate (Isolan DO)	2.0
Octyl Stearate (Tegosoft OS)	5.0
Octyl Palmitate (Tegosoft OP)	5.0
Isopropyl Palmitate (Tegosoft P)	5.0
Phase B:	
Water	79.0
Glycerin	3.0
Preservative	Q.S.
Phase C:	
Carbomer 1382	0.2
Isopropyl Palmitate (Tegosoft P)	0.8
Phase D:	
NaOH (10% Solution) adjust pH to 5.5-6.5	Q.S.

Procedure:

1. Mix the ingredients of Phase A and B separately. Add B to A without mixing.
2. Homogenize A/B, oil particle size <0.1 um.
3. Disperse the Carbomer 1382 into the oil/ester and add to A/B. Stir intensively for 30 minutes.
4. Add D and stir for five additional minutes.

Temperature of the phases A, B, C, D: are 20-25C

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Emollient Lotion

A synergistic combination of Veegum and Carbomer is used to thicken and stabilize this elegant cosmetic lotion. The emollients in this formula were selected for their moisturizing properties. The emulsification for the formula is provided by the glyceryl monostearate and the triethanolamine stearate (formed in situ).

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.50
Deionized Water	83.66
Carbomer 934 (Carbopol 934)	0.10
B: Triethanolamine	0.10
Glycerine	4.00
C: Mineral Oil	4.00
Petrolatum	0.44
Stearic Acid XXX	1.80
Cetyl Alcohol	0.90
Glyceryl Stearate SE (Kessco GMS-SE)	1.60
Cetyl Acetate (and) Acetylated Lanolin Alcohol (Acetulan)	2.20
Dimethicone, 350 cs	0.70
D: Preservative	q.s.

Procedure:

Add the Veegum to the water slowly, agitating at maximum available shear until smooth. Add the remaining Part A ingredient and mix until thoroughly dispersed. Add the Part B ingredients in the order shown, mixing each until uniform. Heat Parts A+B to 70-75C. Mix and heat the Part C ingredients to 75-80C. Add Part C to Parts A+B with high speed agitation. Begin cooling while mixing slowly and add Part D at 40C or lower.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 378

Ethnic Hand & Body Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Tetrasodium EDTA	0.10
Methyl Paraben	0.15
Propyl Paraben	0.10
Carbopol 934	0.15
Triethanolamine (88%)	1.80
Glycerin	5.00
Neobee M-20	6.50
Stearic Acid, Tech.	3.00
Wecobee S	0.50
Kessco Cetyl Alcohol	0.46
Kessco GMS Pure	0.10
Silicone DC-200 (200 cps)	0.10
DMDM Hydantoin	0.25

Mixing Procedure:

Into a suitable container equipped with mixing, heating, and cooling capabilities, add the D.I. Water, Tetrasodium EDTA, Methyl Paraben, Propyl Paraben, Carbopol 934, and Glycerin. Mix with very good agitation until there are no lumps. Add Triethanolamine (88%). Start heating to 165-170F. In a separate container, combine Neobee M-20, Stearic acid, Wecobee S, Kessco Cetyl Alcohol, and Kessco GMS Pure. Heat to 170-175F. Add to water phase and emulsify for 20-25 minutes. Start cooling. At 100F, add Silicone DC-200. At 90F, add DMDM Hydantoin. At room temperature, adjust pH to 7.8-8.0 if necessary. Check viscosity.

Ethnic Hand & Body Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Neobee M-5	10.00
Kessco GMS-Pure	3.00
Kessco Cetyl Alcohol	2.00
Wecobee SS	2.50
Brij 78	0.40
Propyl Paraben	0.05
Silicone DC-200 (350 cps)	1.00
DMDM Hydantoin	0.25

Mixing Procedure:

Into a suitable container equipped with mixing, heating, and cooling capabilities, prepare water phase by adding D.I. Water and Methyl Paraben. Start mixing and heat to 160-165F. In a separate container, prepare oil phase by adding Neobee M-5, Kessco GMS-Pure, Kessco Cetyl Alcohol, Wecobee SS, Brij 78, and Propyl Paraben. Heat to 165-170F. Increase agitation of water phase and slowly add oil phase. Emulsify for 20-25 minutes at 165-170F. Start cooling. At 100F, add Silicone DC-200 and DMDM Hydantoin. At room temperature, adjust pH to 7.8-8.0 if necessary. Check viscosity.

Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Carbopol 934	0.15
Deionized Water	83.45
B:	
Methylparaben	0.20
Propylparaben	0.10
Propylene Glycol	0.80
Disodium EDTA	0.10
Glycerin	5.00
C:	
Carnation Mineral Oil (Witco)	4.00
Stearic Acid	2.00
Glycol Stearate	1.50
Cetyl Acetate/Acetylated Lanolin Alcohol	0.50
Glyceryl Stearate	0.50
Dimethicone	0.50
Cetyl Alcohol	0.20
Triethanolamine	1.00
Fragrance	q.s.

Procedure:

Part A-Disperse Carbopol into water under rapid agitation, heat to 75C. Combine B ingredients, add to A under moderate agitation. Separately combine C ingredients, heat to 75C. Slowly combine C to A-B with good agitation. Add TEA cooling with slow agitation to 45C. Add fragrance, cool to room temp.

Cocoa Butter Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Glyceryl Stearate	1.28
Hydrofol Acid 1655CG	2.03
Carnation Mineral Oil (Witco)	7.50
Adol 52NF	1.07
Lanolin	0.53
Isopropyl Palmitate	0.57
Cocoa Butter	0.50
Water Phase:	
Varonic LI-48	1.60
Triethanolamine	0.89
Propylene Glycol	1.60
Deionized Water	82.43
Preservatives:	
Methyl Paraben	0.10
Propyl Paraben	0.05

Procedure:

Prepare Water and Oil Phases separately. Warm each phase to 80C. Blend Oil Phase into Water Phase with rapid but smooth agitation. Cool system with smooth agitation to 40C. Blend in Preservatives. Continue agitation to 35C and add dye and perfume.

SOURCE: Witco Corp.; Suggested Formulations

Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum Pro	2.00
Water	70.75
Glycerin	6.00
B:	
Ervol Mineral Oil (Witco)	10.00
White Protopet 1S Petrolatum (Witco)	4.00
Arlacel 165	5.00
Synchrowax AW1-C	1.25
C:	
Allantoin	1.00
Preservative	q.s.

Procedure:

Heat the water to 70-75C, then slowly add Veegum while agitating at maximum shear. Mix until smooth. Add glycerine and mix until uniform. Heat B to 75-80C. Add B to A and mix until cool. Add C and mix until uniform. Veegum Pro effectively thickens and stabilizes the emulsion even at elevated temperatures.

Depilatory Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	57.1
Avenel S-150 (PPG-Mazer)	3.0
Calcium Hydroxide	6.5
Melamine	3.0
Lithium Hydroxide	2.8
B:	
Macol 124 (PPG-Mazer)	6.0
Carnation Mineral Oil (Witco)	7.0
C:	
Water	10.0
Thioglycolic Acid (Witco)	4.6

Procedure:

Blend A ingredients. Heat A to 65C. Premix B ingredients, heating to 65C. Add B to A with high shear agitation. With sweep agitation cool batch to 30C. Premix C at or below room temp. and add slowly to main batch. Maintain temp. at 35C during the addition.

SOURCE: Witco Corp.: Suggested Formulations

Hand and Body Lotion

A Veegum and Cellulose Gum combination is used effectively in this formula to provide emulsion stabilization and viscosity control. The combination of liquid emollients provides smooth rub-in and non-greasy feel. Stearic Acid is used as a non-greasy oil phase thickener.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	1.00
Cellulose Gum (CMC 7MF)	0.15
Deionized Water	80.75
Dimethicone (Dow Corning Antifoam AF)	0.10
B: Mineral Oil	5.00
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.00
Stearic Acid XXX	3.00
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	4.00
Lanolin Oil	2.00
C: Preservative	q.s.

Procedure:

Add the Veegum/Cellulose Gum dry blend to the water slowly, agitating at maximum available shear until smooth. Add Dimethicone at slow mixing speed. Heat Part A to 70C and Part B to 75C. Add Part B to Part A and mix while cooling. Package at 40C.

Formula No. 370

Dry Touch Emollient Lotion

Veegum stabilizes the emulsion and adjusts the viscosity of this lotion. The emollients used for these lotions were selected for their moisturizing properties. The emulsification for these formulas is provided by the glyceryl monostearate and the triethanolamine stearate (formed in situ).

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.50
Water	85.50
B: Triethanolamine	0.10
Glycerin	3.50
C: Mineral Oil	3.60
Petrolatum	0.40
Stearic Acid XXX	1.60
Cetyl Alcohol	0.80
Glyceryl Stearate SE (Kessco GMS-SE)	1.40
Cetyl Acetate (and) Acetylated Lanolin Alcohol (Acetulan)	2.00
Dimethicone, 350 cs.	0.60
D: Color, Preservative, Perfume	q.s.

Procedure:

Add the Veegum to the water slowly, agitating at maximum available shear until smooth. Add the Part B ingredients to Part A and heat to 70-75C with gentle stirring. Heat the Part C ingredients to 75-80C. Add Part C to Parts A+B and mix thoroughly while cooling. At 40C add Part D, mix until uniform.

Formula No. 377

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Glucate SS	1.00
Glucamate SSE-20	1.00
Modulan	2.00
Stearic Acid	2.00
Blandol Mineral Oil	3.00
Aprikol (Bell)	3.00
Phenonip (Fanning)	0.20
B:	
Glucam E-20	5.00
Deionized Water	81.00
Dowicil 200	0.20
C:	
Pacific Sea Kelp Extract	0.25
Chamomile Extract	0.25
Hawaiian White Ginger Extract	0.25
Fragrance J-5390 (Bell)	0.30
Premix Tween 20	0.50

Procedure:

Heat Phases A and B to 85C. Add B to A at 85C. Stir and cool to 45C. Add Botanicals and Fragrance. Stir to 30C and package.

Rehydrating Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	60.68
Tetrasodium EDTA	0.04
Methylparaben	0.16
Propylparaben	0.08
Propylene Glycol	4.00
Carbopol 940 2% in Water	5.60
B:	
Carnation Mineral Oil (Witco)	5.60
Stearic Acid XXX	2.00
Aldo MS (Glyco)	2.40
Fluilan	0.40
Liponate GC	2.40
Finsolv TN	0.04
Butyl Paraben	0.04
C:	
Triethanolamine 99%	0.80
D:	
Aloe-Moist (Terry)	15.00

Procedure:

Add B at 80C while stirring. Add C and stir 15 minutes at 80C. Cool to 55C and add D. Cool to 30C.

SOURCE: Witco Corp.: Suggested Formulations

Hand and Body Lotion

A non-tacky, moisturizing hand and body lotion with natural skin feel, containing Clariskin for eliminating brown age spots.

Ingredients:

	<u>%W/W</u>
1. Distilled/Deionized Water	78.90
2. Disodium EDTA	0.10
3. Acritamer 941 (Carbomer)	0.20
4. Propylene Glycol	0.80
5. Glycerine	5.00
6. Methylparaben	0.20
7. Propylparaben	0.10
8. Mineral Oil (Drakeol-21)	4.00
9. Stearic Acid	2.00
10. Rita EGMS (Glycol Stearate)	1.50
11. Ritawax ALA (R.I.T.A. Blend)	0.50
12. Rita SA (Stearyl Alcohol)	0.50
13. Rita CA (Cetyl Alcohol)	0.20
14. Ritasil 190 (Dimethicone Copolyol)	0.50
15. Triethanolamine	0.50
16. Clariskin (Yeast Extract)	5.00

Compounding Procedure:

Disperse item 2 into the water until uniform and add item 2. Mix items 4-7 and add to the combined items 1-3, then heat to 65C. Mix items 8-14 and heat to 65C. Add oil phase to water phase. Hold temperature at 65C and add item 15. Cool to 40C and add item 16.

Ref. No. 122-88B

Hand Lotion

A non-greasy hand lotion designed for normal skin.

Ingredients:

	<u>%W/W</u>
1. Mineral Oil (Light)	3.00
2. Stearic Acid	2.50
3. Rita GMS (Glyceryl Stearate)	2.00
4. Ritawax ALA (Cetyl Acetate and Acetylated Lanolin Alcohol)	0.75
5. Rita CA (Cetyl Alcohol)	0.50
6. Propylparaben	0.05
7. Acritamer 934 (Carbomer)	0.10
8. Distilled/Deionized Water	81.85
9. Methylparaben	0.10
10. Triethanolamine (50%)	0.65
11. Propylene Glycol	3.50
12. Fragrance	q.s.
13. Tensine (Wheat Protein)	5.00

Compounding Procedure:

Slowly add item 7 to item 8 with agitation. Add item 9 and heat to 70C. Combine items 1-6 and heat to 70C. Add items 10 and 11 to water. Add oil to water with mixing. Begin cooling while mixing. Add items 12 and 13.

Ref. No. 122-2A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hand & Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	72.15
B:	
Polysorbate-20	2.00
Methylparaben	0.20
Ethylparaben	0.15
C:	
Glycerin	3.00
Xanthan Gum	0.12
D:	
Sesame Oil	4.00
Carnation Mineral Oil (Witco)	1.00
Glyceryl Stearate & PEG-100 Stearate	3.00
Sorbitan Stearate	2.00
Cetyl Alcohol	1.00
Mineral Oil and Lanolin Alcohol (Amerchol)	3.00
Dimethicone	0.50
BHA	0.05
Methocel 40-100	0.10
Vitamin E Oil	0.01
Stearic Acid	1.50
E:	
Deionized Water	1.50
Dowicil 200	0.10
F:	
Deionized Water	1.00
Collagen	0.01
Elastin	0.01
G:	
Fragrance	0.10

Procedure:

Heat A to 70-80C. Combine B ingredients and warm. Add to A at 75-80C, combine C ingredients and mix well to pre-wet xanthan. Add to A. Weigh D ingredients into steam-jacketed kettle and heat to 80C. Add to water phase. Turn heat off and mix emulsion down to 45C. Prepare E, add to batch at 45C. Add F at 45C. Add G to emulsion.

Light Conditioning Hand Lotion

<u>Formula:</u>	<u>% by Weight</u>
A: Glucquat 100	1.0
Deionized Water	84.0
B: Glucate SS	0.8
Glucamate SSE-20	1.2
Acetulan	2.0
Glyceryl Monostearate	0.5
Carnation Mineral Oil (Witco)	7.5
Perfume and Preservative	q.s.

Procedure:

Dissolve Gluquat 100 in water and heat to 70C. In separate vessel, combine B and heat to 70C with propeller agitation. Slowly add A to B and mix until uniform. Cool to room temperature with mixing.

SOURCE: Witco Corp.: Suggested Formulations

Incroquat Behenyl TMS Lotion

This basic formulation shows how Incroquat Behenyl TMS can form a stable and elegant, yet simple, emulsion. The soft/powdery feel it confers on the skin is due to the conditioning effects of the behenyl quat.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	3.00
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.00
Dimethicone 200 (200 cps)	1.00
Volpo S-2 (Steareth-2)	0.10
Volpo S-10 (Steareth-10)	0.50
Part B:	
Deionized Water	77.40
Part C:	
Deionized Water	5.00
Hydrotriticum 2000 (Hydrolyzed Whole Wheat Protein)	1.00
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) and Propylparaben	1.00
Crodasome CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.00
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	5.00

pH=4.5+-0.5

Viscosity=9,000 cps+-10% (RVT Spindle #TC, 10 rpm, 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Heat Part B to 75-80C. Add Part A to B with mixing. Cool with mixing to 50C and add Parts C and D. Continue mixing and cool to desired fill temperature.

SOURCE: Croda, Inc.: Formulation SC-268

High SPF-30 Lotion
Cold Process

Active Ingredients:

Octyl Methoxycinnamate	3%
Octyl Salicylate	3%
Titanium Dioxide	2%

Ingredients:**Weight%****Phase A:**

Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Caprylic/Capric Triglycerides (Tegosoft CT)	3.00
Cyclomethicone	3.00
Octyl Palmitate (Tegosoft OP)	3.00
Octyl Stearate (Tegosoft OS)	2.00
Polydecene	2.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Octyl Methoxycinnamate	3.00
Octyl Salicylate	3.00

Phase B:

Water	68.40
Sodium Chloride	0.80
Hydroxyethyl Cellulose	0.80
Titanium Dioxide (40% aq. dispersion)	5.00
Preservatives	Q.S.
Fragrance	Q.S.
Color	Q.S.

Procedure:

1. Combine the ingredients of Phase A together. Mix well.
2. Dissolve the Hydroxyethyl Cellulose into the vortex of the agitating water phase. Allow the cellulose to fully hydrate prior to adding the sodium chloride. Add TiO₂ (40% aq. dispersion). Mix until uniform. Add preservatives.
3. Add Phase B slowly into Phase A with slow agitation.
4. Homogenize.
5. Fragrance and color can be added upon forming the emulsion.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Low pH Glycolic Acid Lotion with
18-B Glycyrrhetic Acid Phytosome

An AHA lotion containing Lipo Fruit Acid Complex for softer smoother skin and 18-B Glycyrrhetic Acid Phytosome which should make this more acceptable to sensitive skin.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Wt%</u>
1	Deionized Water	52.65
1	Hypan QT-100 (1% gel)	0.20
1	Benzyl Alcohol	0.50
1	FG-10 Antifoam Simethicone Emulsion	0.10
2	Liponate NPGC-2	5.00
2	Lipocol C	1.75
2	Lipomulse 165	5.00
2	DC Silicone 200/350 cts.	0.50
2	Lipowax D	3.00
3	Liponic EG-1	6.00
3	18-B Glycyrrhetic Acid Phytosome	0.50
4	Lipo Fruit Acid Complex	5.00

Procedure:

1. In main kettle, combine Sequence #1 ingredients under homogenizer and heat to 75C.
2. In auxiliary kettle, combine Sequence #2 ingredients and heat to 80C.
3. At proper temperature, add combined Sequence #2 to Sequence #1 under homogenizer and continue to homogenize until emulsification is complete and all Hypan Gel particles are not visible. Begin to cool and switch to lightnin' mixing.
4. Cool to 40C and add premixed Sequence #3 into batch mix until dissolved and batch is uniform. Cool to 25C with sweep blade at low speed.
5. At 25C, add Sequence #4 into batch.
6. Adjust pH to 3.8-4.1 with appropriate buffer.

SOURCE: Lipo Chemicals Inc.: Formulation No. 891

Moisturizing Lotion

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	2.00
Isopropyl Myristate (Lexol IPM)	1.00
Glycol Stearate (Lexemul EGMS)	0.50
Mineral Oil	0.50
Acetylated Lanolin Alcohol	1.00
Cetyl Alcohol	1.00
Stearic Acid	1.00
Cyclomethicone	0.50
Propylparaben (Lexgard P)	0.05
B: Sorbitol, 70%	4.00
Veegum, Magnesium Aluminum Silicate	0.30
Triethanolamine, 99% to pH 7.0	q.s.
Carbomer 934	0.20
Methylparaben (Lexgard M)	0.15
Deionized Water	87.80

Procedure:

Weigh the water into a suitable vessel and heat to 70C while mixing with a homogenizer at 5000 rpm. Add the Veegum slowly and continue mixing for 20 minutes. Add the Sorbitol and Methyl Paraben and mix each for 3 minutes at 5000 rpm. Add the Carbomer 934 and mix for 3 minutes. Weigh the Part A ingredients into another vessel. Mix and heat to 70C. Add Part A to Part B and mix for 10 minutes at 70C. Move the batch to a propeller mixer, adjust the speed to produce a small vortex, and begin cooling. At 40C, measure the pH and adjust to 7.0 using Triethanolamine. Continue cooling and package at 35C.

Collagen Lotion

The Veegum/Rhodigel mixture stabilizes the emulsion and adjusts the viscosity of this cold process lotion. The lotion provides an elegant feel in both initial application and in the residual film.

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.50
Deionized Water	76.25
B: Glycerin	6.00
Soluble Collagen (Collasol)	5.00
Allantoin	0.25
C: Hydrogenated Polyisobutylene (Polysynlane)	4.00
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	3.00
C10-30 Cholesterol/Lanosterol Esters (Super Sterol Ester)	2.00
DEA-Oleth-3 Phosphate (Crodafos N-3 Neutral)	1.00
Dimethicone, 350 cs. (Dow Corning 200 Fluid)	1.00
D: Preservative	q.s.

Procedure:

Dry blend Veegum and Rhodigel and add them to the water while agitating at maximum available shear until smooth. Add Part B in order, mixing each until smooth and uniform. Combine Part C ingredients, stirring until uniform. Add Part C to Parts A+B. Mix until homogeneous.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Formulas: Inolex Chemical/#381

Moisturizing Lotion

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Pentaerythrityl Tetralaurate	5.00
Glyceryl Stearate (and) PEG-100 Stearate	5.00
Mineral Oil	2.50
Acetylated Lanolin Alcohol	1.00
Dimethicone	1.00
Stearic Acid	1.00
Stearyl Alcohol	0.50
Cetyl Alcohol	0.50
B: Deionized Water	78.00
Veegum HV, Magnesium Aluminum Silicate	0.30
Carbomer 934, 3% Soln. (Carbopol 934)	5.00
C: Triethanolamine, 99%	0.20
Preservative	q.s.

Procedure:

Prepare the 3% Carbomer solution in accordance with the manufacturer's recommendations. Weigh the Part B water into a suitable vessel and heat to 50C. While mixing the water with a homogenizer at 5000 rpm, slowly add the Veegum HV and continue mixing for 20 minutes while heating to 75F. Add the Carbomer solution and continue mixing. Weigh the Part A ingredients into another vessel. Mix and heat to 75C. Add Part A to Part B and mix for 10 minutes at 75C. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 45C, add the Triethanolamine. At 40C, add the preservative and package at 35C.

Formula from Rhone-Poulenc, Inc.

Silicone Barrier Lotion

In this formula, Veegum is used along with Rhodigel Xanthan Gum to stabilize the emulsion and adjust the viscosity. This lotion uses a silicone fluid to achieve an emollient protective barrier with a pleasant non-greasy feel. Stearic Acid is used as a non-greasy oil phase thickener. The Span/Tween combination provides the emulsification for this formula. Lotion viscosity is adjusted by changing the Veegum/Rhodigel level.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.25
Water	80.75
B: Phenyl Trimethicone (Dow Corning 556 Fluid)	5.00
Stearic Acid XXX	5.00
Polysorbate 20 (Tween 20)	4.50
Sorbitan Laurate (Span 20)	3.50
C: Preservative	q.s.

Procedure:

Add the Veegum/Rhodigel dry blend to the water slowly, agitating at maximum available shear until smooth. Heat Part A to 70C. Heat Part B to 75C. Add Part B to Part A and mix while cooling to room temperature. Add Part C and mix until uniform.

Formula No. 374

* As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

O/W Hand & Body Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Glyceryl Monostearate	4.00
Cetyl Alcohol	1.00
Cetiol LC	10.00
Silicone 200/100 cs	0.50
Edeta BD	0.10
Phenonip	0.60
Amphisol A	1.51
B. Deionized Water	10.00
AMP Regular (10% sol'n)	4.00
C. Deionized Water	52.69
Pemulen TR-1 1% soln	10.00
Propylene Glycol	5.00
D. AMP Regular (10% sol'n)	0.60
E. Perfume Oil	q.s.

Procedure:

Heat part A to 85C while stirring. When homogeneous, add part B pre-heated to 75C, while mixing. Add parts C and D pre-heated to 75C, while mixing. Cool to 40C, add part E. Compensate for water loss and continue stirring, while cooling to ambient temperature.

Remark: b) Recommended percentage of suitable dermatologically tested perfume for cream 0.5%.

Formulation PF-0374E suggested by Givaudan-Roure SA

Aculyn 33 Hand Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	to 100%
Imidazolidinyl Urea	0.30
EDTA Na2	0.15
Cetearyl glycoside	20.00
Isopropyl myristate	5.00
Aculyn 33	3.00
B. AMP-95 (10% soln.)	3.00

Procedure:

Mix the ingredients in the order listed.

Physical Characteristics:

pH: 7.4

Viscosity (6 rpm): 12,000 cps

Formulation PF-0388 suggested by Rohm and Haas Co. (PF-034)

SOURCE: Angus Chemical Corp.: Product Formulary

Pearlized Body Lotion

<u>Phase#:</u>		<u>Wt%</u>
1	Deionized Water	q.s.
1	Pearlescent Pigment (Rona)	2.00-5.00
2	Carbopol 941	0.40
3	Propylene Glycol	8.00
3	Methyl Paraben	0.20
4	Disodium EDTA	0.05
5	Triethanolamine 99%	0.60
5	Deionized water	2.00
6	Crodesta SL40	3.00
7	Mineral Oil 90cs	4.00
7	Schercemol 185	
7	Crill 6	1.00
7	Propyl Paraben	0.10
8	DMDM Hydantoin 55%	0.18
9	Fragrance	0.10

Procedure:

Combine phase 7, heat to 80C with stirring until homogeneous. Combine phase 1, heat to 70C. Add phase 2 while homogenizing. Combine phase 3, add to batch. Add phase 4. Combine phase 5, add to batch. Add phase 6. Heat to 75C. Add combined phase 7, maintain homogenizer agitation for 15 minutes. Cool to 45C, add phases 8,9. Cool to 30C.

Rona Pearl Pigment Combinations:

EM1-55-1	Timiron Super Gold	2%
EM1-55-2	Timiron Super Red	2%
EM1-55-3	Timiron Super Violet	2%
EM1-55-4	Timiron Super Blue	2%
EM1-55-5	Timiron Super Green	2%
EM1-55-6	Timiron Super Copper	2%

SOURCE: Rona/EM Industries, Inc.: Formulation EM1-55

Protective Lotion with Cromoist CM Glucan

This lotion is ideal for every day use due to the protective effects of Cromoist CM Glucan on the skin and is especially beneficial before and after exposure to the sun. By stimulating the skin's own defense mechanisms, the powerful protectant and therapeutic agent is able to increase the skin's resistance to UV-A induced oxidative stress and other environmental insults. Crodafos CES is a unique conditioning and emulsifying system that enhances the protective and emollient effects of the lotion by promoting better delivery of Cromoist CM Glucan and Crodamol PMP, the emollient ester used to reduce the greasiness of the petrolatum.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol PMP (PPG-2 Myristyl Ether Propionate)	5.0
Petrolatum	2.0
Part B:	
Deionized Water	75.8
Triethanolamine (98%)	0.2
Part C:	
Deionized Water	5.0
Collasol (Soluble Collagen)	1.0
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.0
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Incromectant LAMEA (Acetamide MEA (and) Lauramide MEA)	5.0

pH=4.5+-0.5

Viscosity=6,000 cps+-10% (RVT Spindle # TC @ 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add ingredients of Part A to B with mixing and cool to 50C. Add ingredients of Part C and D with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-266

Rain Forest Lotion with Cronatural Brazil Nut Oil

This formulation produces a shiny white, pumpable lotion with excellent rub-in characteristics and dries quickly to a very conditioned softness. Cronatural Brazil Nut Oil imparts a dry emollient feel without a hint of oiliness.

Ingredients: Wt%

Part A:

Incromine BB (Behenamidopropyl Dimethylamine)	3.0
Crodacid B (Behenic Acid)	2.5
Mineral Oil (70ssu)	15.0
Cronatural Brazil Nut Oil	5.0

Part B:

Deionized Water	73.5
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Part C:

Propylene glycol (and) diazolidinyl urea (and) methyl paraben (and) propyl paraben*	1.0
pH: 7.5+-0.5	

Viscosity: 3,000 cps+-10% (RVT Spindle #5, 50 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 80-85C. Heat Part B to 80-85C. Add Part B to Part A with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature.

*Germaben II (Sutton Labs)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-245

Dihydroxyacetone Lotion

Phase A:	<u>Wt%</u>
Abil EM-90	1.5
Abil WE-09	1.0
Abil B 8839	6.0
Tegosoft OS	4.0
Isohexadecane	7.0
Hydrogenated Castor Oil	0.4
Beeswax	0.4
Phase B:	
Water	72.9
Propylene Glycol	2.0
Sodium Chloride	0.8
Dihydroxyacetone	4.0
Preservatives	Q.S.
Color	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Blend the components of Phase A. Heat to 85C in a closed kettle while mixing until all waxes are dispersed.
 2. Cool to 40C.
 3. Heat Phase B components to 40C while mixing.
 4. Add B to A slowly with slow agitation until B is fully dispersed.
 5. Add fragrance with slow agitation. 6. Homogenize.
- SOURCE:** Goldschmidt Chemical Corp.: Suggested Formulation

Skin Firming Lotion

A light skin lotion containing Raffermine to enhance the firmness of the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Stearic Acid	3.10
2. Soy Glycerides	3.10
3. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	1.20
4. Caprylic/Capric Triglycerides	2.50
5. Methylparaben	0.15
6. Propylparaben	0.05
7. C12-15 Alkyl Benzoate	1.50
8. Distilled/Deionized Water	79.10
9. Acritamer 940 (Carbomer)	0.15
10. Methyl Gluceth-20	3.00
11. Propylene Glycol	3.20
12. Raffermine (Hydrolyzed Soy Flour)	2.00
13. TEA (50%)	0.50

Compounding Procedure:

Combine items 1-7 and heat to 70C. Combine items 8, 10 and 11. Heat to 70C while dispersing item 9. Add oil to water. Add TEA and mix while cooling. At 40C add item 12.

Ref. No. 121-125

Facial Moisturizing Lotion

Elegant mineral oil and lanolin based emulsion formulated with Polyquta to add substantivity to the skin and Ritasil 190 for pleasant skin feeling.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritapro-165 (R.I.T.A. Blend)	4.00
2. Mineral Oil	5.00
3. Lanolin USP (R.I.T.A. X-tra Deo)	0.50
4. Ritapro 100 (R.I.T.A. Blend)	1.50
5. Ritasil 190 (Dimethicone Copolyol)	0.40
6. Distilled/Deionized Water	81.70
7. Propylene Glycol	6.00
8. Polyquta 3000 (Polyquaternium-10)	0.50
9. Glydant	0.20
10. Fragrance-Light Musk 169-119	0.20

Compounding Procedure:

Dissolve Polyquta 3000 in water. Add item 7 and heat to 70C. Separately heat items 1-5 to 70C. Add this mixture to water mixture. Mix to uniform and cool to 40C. Add preservative and perfume.

Ref. No. 121-89

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Therapeutic Hand & Body Lotion

<u>Raw Material:</u>	<u>Wt% (as-is)</u>
1. D.I. Water	Q.S. to 100.00
2. Methyl Paraben	0.15
3. Glycerine	3.5
4. Brij 78	0.4
5. Octyl Isononanoate	10.0
6. Kessco GMS	3.0
7. Kessco Cetyl Alcohol	2.0
8. Wecobee S	2.5
9. Propyl Paraben	0.01
10. Silicone 200 (350 cps)	1.0
11. Glydant	0.25
12. Citric Acid 50%	Q.S.
13. Fragrance, Color	Q.S.

Properties:

Appearance: Opaque Lotion

pH @ 25C: 6.0-7.0

Mixing Procedure:

Prepare water phase by adding 1,2 and 3. Heat to 70C. Prepare oil phase by adding 4,5,6,7,8 and 9. Heat to 70C. Add oil phase to the water phase. Increase agitation. Mix at 70C for 20-25 minutes. Start cooling to room temperature with continuous agitation. At 45C, add 10 and 11. Adjust pH if necessary. Cool to ambient temperature.

Ethnic Hand & Body Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Glycerin	4.00
Ammonyx 4	18.40
Petrolatum	4.00
Kessco IPP	3.00
Silicone DC-200 (350 cps)	1.00
Kessco Cetyl Alcohol	2.00
Potassium Chloride	0.40
Citric Acid (50%)	Q.S.
Preservative	Q.S.

Mixing Procedure:

Into a suitable container equipped with mixing, heating, and cooling capabilities, add the D.I. Water, Glycerin, and Ammonyx 4. Start mixing and heating to 155-160F. At 155-160F, add Petrolatum, Kessco IPP, Silicone DC-200, and Kessco Cetyl Alcohol. Mix well for 20 minutes, keeping heat at 160F. Start cooling to room temperature. At 100F, premix potassium chloride with small amount of D.I. Water and add to the batch. At 90F, add preservative. At room temperature, adjust pH to 4.0-4.5 if necessary with citric acid (50%).

SOURCE: Stepan Co.: Suggested Formulations

Under Make-Up Lotion

A non-greasy, protective day cream containing Tensine and Reductine to firm the skin and help reduce fine lines.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	8.00
2. Ceteareth-25	3.00
3. Rita IPP (Isopropyl Palmitate)	5.00
4. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	5.00
5. Methylparaben	0.20
6. Propylparaben	0.10
7. Distilled/Deionized Water	62.50
8. Propylene Glycol	5.00
9. Tensine (Wheat Protein)	6.00
10.Reductine (Oat Protein)	5.00
11.TEA (99%)	q.s.
12.Fragrance	0.20

Compounding Procedure:

Combine items 1-6 and heat to 70C. Combine items 8 and 9 and heat to 70C. Add oil to water and mix. Allow to cool to 40C and add items 9-12.

Ref. No. 120-195

Under Make-Up Lotion

A non-greasy, protective day cream containing Tensine and Reductine to firm the skin and help reduce fine lines.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	8.00
2. Ceteareth-6 and Stearyl Alcohol	3.00
3. Rita IPP (Isopropyl Palmitate)	5.00
4. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	5.00
5. Methylparaben	0.20
6. Propylparaben	0.10
7. Distilled/Deionized Water	62.50
8. Propylene Glycol	5.00
9. Tensine (Wheat Protein)	6.00
10.Reductine (Oat Protein)	5.00
11.TEA (99%)	q.s.
12.Fragrance	0.20

Compounding Procedure:

Combine items 1-6 and heat to 70C. Combine items 8 and 9 and heat to 70C. Add oil to water and mix. Allow to cool to 40C and add items 9-12.

Ref. No. 120-196

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Water-in-Oil Moisturizing Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum	1.3
Water	55.7
Magnesium Sulfate	0.5
B:	
Carnation Mineral Oil (Witco)	9.0
Polysynlane	10.0
Nimlesterol D	7.5
Amerchol L101	9.0
70% Sorbitol Solution	5.0
Witcamide 511	2.0
Preservative	q.s.

Procedure:

Add Veegum to water slowly, agitating continually until smooth. Add magnesium sulfate and mix until smooth. Blend B and add A to B. Mix until smooth and uniform. This formula is a rich, pourable or pumpable lotion and may be dispensed from a suitable glass or plastic bottle.

Facial Lotion

<u>Formula:</u>	<u>% by Weight</u>
Water Phase:	
Water	q.s. to 100
Triethanolamine	0.2
Oil Phase:	
Carnation Mineral Oil (Witco)	4.0
Stearic Acid	1.0
Naturechem GMHS (CasChem)	2.5
Lanolin Oil	2.0
Imidazolidinyl Urea, Methylparaben, Propylparaben	0.2
Fragrance	0.3

Procedure:

Heat both phases to 75C. Add oil phase to water phase with high speed mixing. Allow to cool and continue mixing to 35C; add preservative and fragrance; mix thoroughly.

SOURCE: Witco Corp.: Suggested Formulations

W/O Lotion, EO-free with Softisan 649

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	8.00
Miglyol 840 (Propylene Glycol/Dicaprylate/Dicaprate)	8.00
Softisan 649*	5.00
Arlacel 1689 (Polyglycerin (and) Sorbitol)	4.00
Arlamol HD (Isohexadecane)	3.00
B. Magnesium Sulphate	2.00
Preservative	q.s.
Water, ad	100.00
C. Fragrance	q.s.
* Bis-Diglyceryl Polyacyladipate-2	

Preparation:

A is heated up at about 75C.
 B is brought to the same temperature.
 A is emulsified with an homogenizer into A.
 C is added at 30C.
 Formulation HUK WOL

New "Light Lotion" with Imwitor 375

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	16.25
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3.00
B. Natrosol Plus 330 CS	0.75
Preservative	q.s.
Water, ad	100.00
C. Fragrance	q.s.

Preparation:

Ingredients of A are heated to about 70C.
 To build phase B Natrosol is dispersed in water and stirred to homogeneity.
 Then B is brought to the same temperature and emulsified into A.
 The cream is stirred cold and then C is added.
 Formulation HUK LL

SOURCE: Huls Aktiengesellschaft: Suggested Formulation

2% AHA Low Viscosity Lotion with Uninontan U-34

An AHA Lipo Fruit Acid lotion with Uninontan U-34 and Gorgonian Extract to provide an even skin tone and help minimize skin irritation. This formula also contains a balanced emulsifier system for excellent stability and a variety of emollients/moisturizers for skin softness.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Deionized Water	76.64
1	Uniphen P-23	0.50
1	Liponic EG-1	1.50
2	Keltrol	0.25
2	Veegum	0.15
3	Ultrapure L	1.50
3	Lipo GMS 450	1.50
3	Lipopeg 6000 DS	1.75
3	Lipowax G	0.25
3	Lipowax P	0.45
3	Lipocol C	1.00
3	Liponate NPGC-2	4.00
3	Lipovol SAF	0.50
3	Lipovol SES	0.50
4	Uninontan U-34	5.00
5	Gorgonian Extract	0.50
6	Triethanolamine, 99%	QS*

* To adjust pH

Procedure:

1. Mix Sequence #1 together with overhead mixer while heating to 78C.
2. Dry mix Sequence #2 together and add slowly to Sequence #1 with medium/high agitation. (Mix well until both gums are completely hydrated/homogeneous.)
3. Mix Sequence #3 together and heat to 78C until completely melted and add to batch. (Cool to 55C, place on sweep blade and continue to cool to 45C).
4. At 45C, premix Sequence #4 together at room temperature and add to batch using sweep blade at low speed. Lower temperature to 40C.
5. At 40C, add Sequence #5 to the batch.
6. Cool down to 25C and remove from mixer.
7. Adjust pH to 3.8-4.2 with Sequence #6.

Specifications:

pH: 4.0+/-0.2

Viscosity: 6,700 cps+/-10% LVT #4 @ 30rpm

SOURCE: Lipo Chemicals Inc.: Formulation No. 936

Section VIII

Shampoos

Anti-Dandruff Shampoo
Suspending Sulfur with Ritavena 5

	Wt%
Sodium Lauryl Sulfate	51.70
Distilled Water	28.30
Pationic ISL/85	3.00
Ethylene Glycol Distearate	3.00
Cocamide DEA	4.50
Propylene Glycol	2.00
NaCl (25% Solution)	1.00
Lactic Acid (44%)	QS
Flowers of Sulfur	2.00
Ritavena 5	4.50

pH: 7.55

Viscosity: 15,800 cps

Stability:

Freeze/Thaw: v. sl. precip. after 2 cycles

40F: no change after 6 weeks

110F: slight separation but sulfur stays

Foam Testing:	Foam	H2O
0.0 minute	310	80
1.0 minute	310	100
3.0 minute	295	100

SOURCE: R.I.T.A. Corp.: Ritavena 5: Formulation 112-120-B

Children's Conditioning Shampoo

	Wt%
Mackadet BSC	25.0
Mackalene 426	3.0
Sodium Chloride	1.5
Mackstat DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first two components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust viscosity with Sodium Chloride.
4. Add remaining components and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

Antidandruff Shampoo

	Wt%
A:	
Water	47.0
Veegum, Magnesium Aluminum Silicate	0.5
B:	
Cocobetaine	6.0
Ammonium Lauryl Sulfate	25.0
Disodium Oleamido PEG-2 Sulfosuccinate	15.0
C:	
Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (and) Propylene Glycol (Germaben II)	1.0
Hydroxypropyl Guar	0.5
Cocamide DEA	3.0
Zinc Pyrithione	2.0
D:	
Dye, fragrance	q.s.

Procedure:

Slowly add Veegum to the water using maximum available shear. Allow to fully disperse and hydrate under continuous mixing for a minimum of 15 minutes. Blend B ingredients into A with continuous stirring for 5 minutes. In separate kettle disperse guar and cocamide DEA in Germaben II. Blend in zinc pyrithione. When uniform add A + B to C. Add dye and fragrance. No heat is required.

Formula from ISP Sutton Laboratories

Moisturizing Antidandruff Shampoo

	Wt%
Sodium Laureth Sulfate, 30%	25.00
Potassium Cocoyl Hydrolyzed Collagen (Maypon 4C)	10.00
Cocamide DEA	1.00
Propylene Glycol	3.00
Zinc Pyrithione, 48%	4.50
Veegum, Magnesium Aluminum Silicate	1.00
Hydroxypropyl Methylcellulose	1.20
Methyl Paraben (Lexgard M)	0.15
Propyl Paraben (Lexgard P)	0.05
Water	q.s. to 100

Procedure:

Heat water to 70C. Disperse methyl cellulose and Veegum. Add remaining ingredients and mix thoroughly. Cool to 40C. Typical properties: pH 6.7. Viscosity at 24C: 2925 cps. Thick lather, small bubbles.

Formula from Inolex Chemical Corp.

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulas

Clear Shampoo with Microcapsules

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	39.60
1	Sodium Chloride	0.20
1	Methylparaben	0.25
1	Hampene Na2T	0.05
2	Liponic EG-1	1.00
2	Hypan SR150H	0.10
3	Carbopol ETD 2020 (2% sol'n)	30.00
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.80
5	Standapol ES-2	20.00
5	Standapol T	6.00
6	LipoPearl Green	1.00
	Vitamin E Acetate	

Procedure:

1. Mix and heat Sequence #1 to 80C with overhead mixer at medium speed.
2. Premix into slurry Sequence #2 and add to Sequence #1 at 80C with overhead mixer.
3. Premix Sequence #3 and add to batch with overhead mixer at medium speed.
4. Premix Sequence #4 and add to batch with overhead mixer at medium speed.
5. At low speed on overhead mixer add Sequence #5 in order of addition (keeping aeration to a minimum). Cool to 25C with sweep blade.
6. At 25C slowly add Sequence #6 microcapsules using sweep blade at low speed.

SOURCE: Lipo Chemicals Inc.: Formula No. 869

All Natural Shampoo

	<u>Wt%</u>
Mackadet WGS	45.0
Mackamide LLM	10.0
Sodium Chloride	2.5
Mackstat DM	Q.S.
EDTA (40%)	Q.S.
Fragrance	Q.S.
Deionized Water	Q.S.
	100.0

Procedure:

1. Add components to water and blend until clear.
2. If a higher viscosity is needed, adjust with sodium chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Conditioning Color Enhancer Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	20.00
Sodium Laureth Sulfate (28% 2M. E.O.)	20.00
Disodium Cocoamphodipropionate	10.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.50
Quaternium-80 (Abil Quat 3272)	0.50
Phase B:	
Basic Blue 99	Q.S.
Basic Brown 16	Q.S.
Acid Violet 43	Q.S.
Basic Red 36	Q.S.
Basic Yellow 57	Q.S.
Phase C:	
Water	38.40
Tetrasodium EDTA	0.10
Cocamidopropyl Betaine (Tego Betaine E)	7.00
Dimethicone Copolyol (Abil B 8852)	0.50
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.00

Procedure:

1. Combine ingredients of Phase A.
2. Blend colors, add to Phase A. Mix well.
3. Add ingredients of Phase C to A/B in order, mixing well. Avoid foaming. Adjust pH to 6.0 with Citric Acid.
4. Adjust viscosity with the PEG-18 Glyceryl Oleate/Cocoate (Antil 171).

SOURCE: Goldschmidt Chemical Co.: Suggested Formulations

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>Weight%</u>
Carbopol ETD 2020, 1.5%	77.70
Disodium EDTA	0.10
Calfoam SLS-30	15.00
Calfoam ES-303	5.00
Calamide C	2.00

Comments about this formula:

1. A 1.5% solution is made by dispersing the Carbopol in 40C warm water and stirring.
2. The dispersion is slightly hazy with gel-like consistency.
3. Probably even a 1% solution would be suitable for this application.
4. The ingredients are gradually added into the Carbopol solution and stirred until a homogeneous product is prepared.

SOURCE: Pilot Chemical Co.: Formulation SHM-005-01

Conditioning Shampoo

This formula uses Incroquat HO-80PG, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat HO-80 PG has been found to work especially well with polymeric quaternaries, like the Jaguar C14S used here, as it appears to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	57.05
Guar Hydroxypropyltrimonium Chloride	0.35
Citric Acid	0.10

Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat HO-80PG (Dioleoylamidoethyl Hydroxyethylmonium Methosulfate)	2.50
Glycol Stearate	0.50
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00

Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
Hexylene Glycol	3.00
Dimethicone Copolyol	1.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.5+-0.5

Viscosity=3,000 cps +-10%, Spindle #4 @ 10 rpm

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-96

Conditioning Shampoo

This formula uses Incroquat Behenyl HE, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat Behenyl HE also works especially well with polymeric quaternaries, like the Jaguar C14S used here, and has been found to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	59.55
Guar Hydroxypropyltrimonium Chloride	0.35
Citric Acid	0.10
Part B:	
SLES (3 mol)	15.00
SLS	5.00
Incronam 30 (Cocamidopropyl Betaine)	6.00
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerol HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat Behenyl HE (Behenamidopropyl Hydroxyethyl Dimonium Chloride)	2.50
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
Hexylene Glycol	2.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.0+-0.5

Viscosity=10,000+-10%, Spindle #4 @ 10 rpm.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-97

Conditioning Shampoo

This formula uses Incroquat HO-80 PG, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and soft, dry feel. Incroquat HO-80 PG has been found to work especially well with polymeric quaternaries, like the Jaguar C 14S used here, as it appears to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	57.05
Guar Hydroxypropyltrimonium Chloride*	0.35
Citric Acid	0.10

Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat HO-80PG (Dioleoylamidoethyl Hydroxyethylmonium Methosulfate)	2.50
Glycol Stearate	0.50
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00

Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben**	1.00
Hexylene Glycol	3.00
Dimethicone Copolyol***	1.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.56+-0.5

Viscosity=4200cps+-10%, Spindle #4 @ 10 rpm

*Jaguar C14S (Rhone-Poulenc)

**Germaben II (Sutton Labs)

***Dow Corning 190 Polyether (Dow Corning)

N.A.T.C. approved

SOURCE: Croda Inc.: Formulation SH-96

Conditioning Shampoo

This formula uses Incroquat Behenyl HE, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat Behenyl HE also works especially well with polymeric quaternaries, like the Jaguar C14S used here, and has been found to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	59.55
Guar Hydroxypropyltrimonium Chloride*	0.35
Citric Acid	0.10
Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat Behenyl HE (Behenamidopropyl Hydroxyethyl Dimonium Chloride)	2.50
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben**	1.00
Hexylene Glycol	2.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.26+-0.5

Viscosity=4800cps+-10%, Spindle #4 @ 10rpm

*Jaguar C145S (Rhone-Poulenc)

**Germaben II (Sutton Labs)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-97

Conditioning Shampoo

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	49.600g
2 Sodium Laureth Sulfate (SLES)	40.000g
3 Tegobetaine L7	5.000g
4 PEG 150-distearate	2.000g
Stage B:	
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	2.500g
6 Germaben 11-E	0.400g
7 P. AG 9960 Fruity Floral for hair	0.300g
8 Phosphoric Acid	0.200g
Colours as required	g

Mixing Instructions:

Measure out the water and add items 2, 3 and 4 and heat until 4 has dissolved, about 65C.

Mix briefly then start cooling, add items 5 & 6 and when at 35C add 7 and adjust the pH to 5.5-6.5.

Colour as required.

This simple formula may be readily adapted to incorporate herbal extracts, hydrolyzed protein, panthenol and other special ingredients as required.

Project JW 2390/Formula Ref. 839*0

Conditioning Shampoo

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	48.600g
2 Texapon L20/M	40.000g
3 Tegobetaine L7	5.000g
4 PEG 150-distearate	2.000g
Stage B:	
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	3.500g
6 Germaben 11-E	0.400g
7 Fragrance	0.300g
8 Phosphoric Acid	0.200g
9 Colours as required	g

Mixing Instructions:

Measure out the water and add items 2,3 and 4 and heat until 4 has dissolved, about 65C.

Mix briefly then start cooling, add items 5 & 6 and when at 35C add 7 and adjust the pH to 5.5-6.5.

Colour as required.

This simple formula may be readily adapted to incorporate herbal extracts, hydrolyzed protein, panthenol and other special ingredients as required.

Project: JW 2390/Formula Ref.: 837*1

SOURCE: A & E Connock Ltd.: Suggested Formulations

Conditioning Shampoo

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Wt</u>
A	Deionized Water	61.25
A	Standapol ES1 (30%)	25.00
A	Velvetex BK35 (35%)	10.00
A	Lauramide DEA	3.00
A	Oils of Aloha Macadamia Nut Oil	0.50
B	Perfume	0.25
B	Preservative	QS

Manufacturing Procedure:

Phase A: Heat water to 70C and add all ingredients except preservative and perfume. Cool to 40C. Add preservative and perfume. Package.

Oils of Aloha Macademia Nut Oil serves as a refatting agent to replace the natural oils lost during shampooing.

SOURCE: Oils of Aloha; Suggested Formulation

Conditioning Shampoo

<u>A:</u>	<u>Wt%</u>
Deionized Water	57.80
Sodium Laureth Sulfate (Phoenate SLES-70)	20.00
Cocamidopropyl Betaine	1.60
Pecosil CAP-1240	2.00
Decyl Polyglucose	8.00
Lauramide DEA (Phoenamid LD)	2.00
PEG-3 Distearate (Phoenate 3DSA)	2.40
Sodium Chloride	0.80
PEG-120 Methyl Glucose Dioleate	2.40
Dimethicone Copolyol Phosphate (Pecosil PS-100)	2.00
B:	
Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	1.00
Color	q.s.
Fragrance	q.s.
10% Aqueous Citric Acid Solution	adjust to pH 5.0-6.0

Procedure:

Combine Phase A items, agitate and heat to 70C. When Phase A is uniform, begin cooling under slow sweep agitation to 45C. Add Phase B with continued slow sweep agitation. When AB is uniform, adjust pH to 5.0-6.0.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Conditioning Shampoo

This multifunctional shampoo provides cleansing and conditioning in one product. It gives improved gloss, wet and dry combability, and manageability to the hair. Frequent use will not lead to a "greasy" buildup on the hair.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Celquat SC-240C	0.70
Distilled Water	55.00
Monateric 805	18.80
Stepanol WAT	18.50
Monamid 716	4.00
Propylene Glycol	2.00
Bermaben II	0.50
Citric Acid	0.50

Preparation:

While maintaining good agitation, slowly sift Celquat SC-240C into water. When solution is complete, add remaining ingredients and mix until homogeneous. Filter and fill container.

Formulation No. 8802:92

Clear, Colorless Conditioning Shampoo

This clear, colorless shampoo provides excellent conditioning and body to the hair.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Celquat SC-230M	0.25
Distilled Water	56.40
Standapol A	35.00
Rewoteric AM B14	7.00
Monamid 716	1.00
Versene 100	0.25
Sodium Chloride	0.10
Preservative	q.s.

Preparation:

Add Celquat SC-230M to water while maintaining good agitation. When solution is complete, add remaining ingredients in the order listed.

Formulation No. 6919-117

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Conditioning Shampoo

<u>Material:</u>	<u>%w/w</u>
Water; Pure	48.600
Texapon L20/M	40.000
Tegobetaine L7	5.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	3.500
PEG 150-distearate	2.000
Germaben 11-E	0.400
Fragrance	0.300
Phosphoric Acid	0.200
Colours as required	

Formula Ref.: 837*1

Conditioning Shampoo

<u>Material:</u>	<u>%w/w</u>
Water; Pure	49.600
Sodium Laureth Sulphate (SLES)	40.000
Tegobetaine L7	5.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	2.500
PEG 150-distearate	2.000
Germaben 11-E	0.400
P.AG 9960 Fruity Floral for hair	0.300
Phosphoric Acid	0.200
Colours as required	

Formula Ref.: 839*0

Shampoo with Silicone

<u>Material:</u>	<u>%w/w</u>
Water; Pure	47.390
Sodium Laureth Sulphate (SLES)	18.000
Empicol TL 40t	17.500
Texapon SBN	9.500
AEC Dimethicone(&)Laureth-4(&)Laureth-23	4.000
Empilan LDE	2.000
Empilan EGMS	1.000
Polymer JR 400	0.500
Kathon CG 100	0.100
Sodium Hydroxide 33%	0.010

Formula Ref.: 1067*0

SOURCE: A & E Connock Ltd.: Suggested Formulations

Conditioning Shampoo

	<u>% By Weight</u>
Water	45.35
Sodium Laureth Sulfate (2 Mole 26%) (Sipon ES2)	20.00
Sodium Lauryl Sulfate and Disodium Lauryl Sulfosuccinate (Monaterge 1164)	20.00
Trisodium Lauroampho PG Acetate Phosphate Chloride (Phosphoteric QL-38)	10.00
Dimethicone (Dow Corning 200 Fluid 200 CS)	2.50
Glycol Distearate (Kessco Ethylene Glycol Distearate)	1.00
Cocamide MEA (Monamid CMA)	1.00
Sodium Chloride	0.15

Procedure:

Add ingredients in order listed with agitation. Heat to 70C. Cool to 40C. Adjust pH to 5.5 to 6.0 with 50% citric acid. Add fragrance, color and preservative as required.

Formulation Properties:

Physical Properties: White pearled lotion
Viscosity @ 25C: 7,100 cps

Formula F-578

Everyday Shampoo

	<u>% By Weight</u>
Water	48.00
Sodium Laureth Sulfate (2 Mole 26%)	20.00
Monaterge 1164	20.00
Phosphoteric QL-38	10.00
Monamid CMA	1.00
Sodium Chloride	1.00

Procedure:

Add ingredients in order listed with agitation. Heat to 60C. Cool to 40C. Adjust pH to 5.5 to 6.0 with 50% citric acid. Add fragrance, color and preservative as required.

Formulation Properties:

Physical Appearance: Viscous liquid
Solids: 17.00%

Formula F-609

SOURCE: Mona Industries, Inc.: Suggested Formulations

Deodorizing Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	32.60
Tetrasodium EDTA	0.10
Sodium Lauryl Sulfate (28%)	17.50
Sodium Laureth Sulfate (28% 2M E.O.)	20.00
PEG-20 Glyceryl Laurate (Tagat L)	2.50
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.50
Glycol Distearate (Tegin EGS)	3.00
Zinc Rincinoleate (and) Triethanolamine (and) Dipropylene Glycol (and) Lactic Acid (Tego Deo HY77)	1.80
Phase B:	
Water	10.00
Preservatives	Q.S.
Fragrance	Q.S.
Cocamidopropyl Betaine (Tego Betaine L7)	7.50
Citric Acid (20% solution)	to pH 7.0
Sodium Chloride (25% solution)	Q.S.

Procedure:

1. Heat Phase A to 70C. Add components in order, mixing well between additions. Avoid foam.
2. Begin cooling. Slowly cool to 35-40C. Some of the water of Phase B can be used to start the cooling.
3. Add the ingredients of Phase B.
4. Adjust pH and viscosity.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Water	74.45
Calfoam SLS-30	5.00
Calfoam ES-303	16.00
Calamide C	2.00
Citric Acid	0.10
Sodium Chloride	2.50
Perfume and Dye	0.10

Comments about this formula:

1. Mix the first four ingredients (pH=10).
2. Add the Citric Acid (approximately 0.1%) to adjust pH to about 6.
3. Add salt to the desired viscosity.
4. Perfume and dye as desired.

SOURCE: Pilot Chemical Co.: Formulation SHM-003-01

Mild Deep Cleaning Shampoo

This unique shampoo formulation provides excellent cleansing of the "greasy" buildup on hair, without drying the hair or scalp. This shampoo also aids in preventing/controlling static flyaway.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Flexan 130	2.00
Distilled Water	62.55
Stepanol WAT	20.00
Rewoteric AM B-14LS	10.00
Propylene Glycol	2.00
Monamid 716	2.25
Sodium Chloride	0.80
Glydant	0.40

Preparation:

While maintaining good agitation, add Flexan 130 to water. When solution is complete, add remaining ingredients one at a time and mix until homogeneous. Filter and fill.

SOURCE: National Starch and Chemical Co.: Formulation 8802:3813

Water White Shampoo

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepanol WA-Extra	46.50
Amphosol CA	5.00
Ninol 40-CO	2.50
Sodium Chloride	1.00
Propylene Glycol	1.00
Glycerin	0.50
Citric Acid (50%)	0.10
Kathon CG	0.06
Sodium Chloride	Q.S.

Mixing Procedure:

Heat first seven ingredients to 165F. Mix. Cool to 110F. Add Kathon CG. Adjust pH with Citric Acid (50%) to 6.5-7.0. Adjust viscosity with Sodium Chloride.

SOURCE: Stepan Co.: Suggested Formulation

Moisture Therapy Shampoo with Hydrotriticum WAA

The use of Hydrotriticum WAA in this shampoo gives hair deep-down moisturization for shine that shows clear through to the outside. Hydrotriticum WAA is a powerful wheat protein-derived amino acid complex that has been shown to penetrate inside the hair, enabling it to moisturize from within. As a cold formula, this shampoo is economical and easy to make.

Ingredients:**Weight%****Part A:**

Incromide LR (Lauramide DEA)	5.00
Incronam 30 (Cocamidopropyl Betaine)	5.00
Sodium Pareth-25 Sulfate	15.00
Hydrotriticum WAA (Wheat Amino Acids)	1.00
Deionized Water	73.00

Part B:

Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
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Procedure:

Combine ingredients of Part A, with mixing until clear. Then add Part B with mixing. Adjust pH to 5.0 with a 10% citric acid solution.

pH=5.0±0.5

Viscosity=8,000±10% (RVT Spindle #4, 10rpm, 25C)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-93

Pearlescent Conditioning Shampoo**Ingredient:****Wt%**

Distilled water	q.s. to 100.00
TEA-lauryl sulfate (40% active)	15.00
Sodium lauroamphoacetate (and) sodium trideceth sulfate	10.00
Cocamide DEA	2.50
Glycol stearate	1.20
Propylene glycol (and) diazolidinyl urea (and) methylparaben (and) propylparaben	0.75
Benecel MP 943 R hydroxypropyl methylcellulose	0.60
N-Hance 3000 cationic guar	0.50
Citric acid (50% solution)	pH adjust

Procedure:

1. Disperse the N-Hance by adding to the vortex of well-agitated water. Reduce to pH 7.0 with citric acid solution to promote dissolution of the surface-treated N-Hance. Heat to 50C.
2. Sift the Benecel into the N-Hance solution. Mix until both polymers are fully dissolved.
3. Increase the temperature to 70C. Add the TEALS and glycol stearate, one at a time. Mix well between each addition. Turn off heat when homogeneous. Maintain mixing.
4. When temperature is at 55C, add remaining surfactants and preservative.
5. Adjust to pH 5.0 with citric acid solution.
6. When below 40C, add fragrance.

SOURCE: Aqualon Div.: N-Hance 3000 Cationic Guar: Formulation

Normal Hair Shampoo

A good, basic shampoo with excellent flash foam and lather which is dense and soft.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	58.64
	Hydroxypropyl Methylcellulose (Methocel 40-100)	0.10
	Na4EDTA	0.20
	Triethanolamine	0.01
B	TEA Lauryl Sulfate (Stepanol WAT)	22.50
	Methyl Paraben	0.20
	Imidazolidinyl Urea (Germall 115)	0.20
	Ammonium Laureth Sulfate (Alfonic 1412-A)	5.50
C	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	6.70
	Cocamide DEA (Mazamide 80)	3.00
	Soya Ethyldimonium Ethosulfate (M-Quat 1033)	0.70
	Citric Acid	0.25
	Ammonium Chloride	2.00

pH: 6.3-6.7

Viscosity: 5500-6000 cps

Appearance: Clear, straw-colored liquid

Procedure:

In the main vessel, disperse the hydroxypropyl methylcellulose in the water, mixing for ten minutes. Add the Na4EDTA and triethanolamine, which initiates hydration of the gum. Mix for about 20 minutes to ensure complete hydration, then add the part B ingredients in order given. When batch is clear and uniform, add the Mazamide 80 and the M-Quat 1033, and adjust the pH and viscosity.

Formula A-208

Baby Shampoo

Clear, mild, gentle-cleansing shampoo. Note: while PPG test data on the individual ingredients indicate that this formula should be extremely mild to skin and eyes, PPG has not performed mildness testing on this system.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	68.1
	PEG-80 Sorbitan Laurate (T-Maz 28)	3.0
	Sodium C12-15 Pareth-15 Sulfonate (Avanel S-150 CG)	7.1
	PEG-150 Distearate (Mapeg 6000DS)	1.0
B	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	10.0
	Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	9.0
	Cocamide DEA (Mazamide JT-128)	1.5
C	Quaternium 15 (Dowicil 200)	0.2
	Fragrance	0.1

pH: 6.8-7.2

Viscosity: 3,400 cps (Brookfield #2 @ 6 rpm)

Appearance: Clear, pale straw-colored liquid

Procedure:

Blend the Part A ingredients, heating to 60-65C to dissolve the Mapeg 6000DS. When uniform, add the Part B ingredients in order and begin cooling. Add the Part C ingredients at approximately 40C.

Formula A-112

SOURCE: PPG Industries, Inc.: Suggested Formulations

Opaque Antidandruff Shampoo

	<u>Wt%</u>
Water	65.3
Veegum, Magnesium Aluminum Silicate	1.0
Hydroxypropyl Methylcellulose	1.1
Zinc Pyrithione, 48% (Zinc Omadine)	4.2
Citric Acid, 50%	0.4
Sodium Lauryl Ether Sulfate	18.0
Cocamide DEA	5.0
Sodium Lauryl Sarcosinate	1.0
Hydrolyzed Collagen	2.0
FD&C Blue No. 1, 0.2%	1.5
FD&C Yellow No. 5, 0.1%	0.5
Fragrance	q.s.

Procedure:

Heat the water to 70C. Begin and maintain rapid stirring (1,500 rpm) during the adding of ingredients. Add the Veegum and stir 15 minutes. Add the hydroxypropyl methylcellulose and stir an additional 15 minutes. Add the Zinc Omadine and stir 5 minutes. Reduce speed to 300 rpm. Add the citric acid and stir until mixed. Turn off heat. While cooling, add the other ingredients (except fragrance) in the order listed. Stir until mixed after each addition. Weigh back and add water to make up for evaporation losses. Cool to room temperature, stirring slowly. Add fragrance. Adjust pH to 8.

Formula from Olin Corp.

Ultra Pearlescent Conditioning Shampoo

This luxurious shampoo formula is thickened using Veegum Ultra which also suspends the mica pigment that provides pearlescence. Vanseal CS (cocoyl sarcosine) provides mildness and hair conditioning properties while combining with lauramide DEA to markedly enhance the quality and stability of the lather produced during shampooing.

	<u>Wt%</u>
A: Veegum Ultra, Magnesium Aluminum Silicate	2.00
Deionized Water	61.25
B: Mica (and) Titanium Dioxide (Timeron MP-1001)	0.50
C: Sodium Laureth Sulfate	25.00
Lauramide DEA (Monamid 716)	7.50
Vanseal CS, Cocoyl Sarcosine	3.75
Preservative, dye, fragrance	q.s.

Procedure:

Sift Veegum Ultra into the water while mixing at 700 rpm with a propeller stirrer. Adjust the propeller speed to 1500-1700 rpm and mix for 30 minutes. Add the B ingredients and mix for 5 minutes. Adjust the speed to 200 to 500 rpm and add the C ingredients in the order shown, mixing after each addition until smooth and uniform.

Formula No. 452

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Pearlescent Shampoo

Three color variants using titanated mica pearl pigments are suggested with this shampoo formula.

	<u>Wt%</u>
A:	
Veegum HV, Magnesium Aluminum Silicate (5% aq. Susp.)	14.00
Hydroxypropylcellulose (5% aq. Soln.) (Klucel G)	20.00
Distilled Water	6.00
B:	
Distilled Water	q.s. to 100.00
TEA Lauryl Sulfate (Standapol T)	25.00
C:	
Citric Acid	0.10
Distilled Water	2.00
D:	
Methyl Paraben	0.20
Diazolidinyl Urea (Germall II)	0.30
Titanium Dioxide (and) Mica (Timiron Super Gold or Super Red)	0.20
Cocamidopropyl Betaine (Velvetex BA-35)	5.00
Cocamide DEA (Standamid KD)	3.00
E:	
Water Soluble Dyes:	
(w/red pearl) 0.2% aq D&C Red 33	0.25
(w/gold pearl) 0.02% FD&C Blue 1	0.30
Yellow 5	0.40
(or) 0.02% FD&C Blue 1	1.00
(or) D&C Red 33	2.00

Procedure:

Prepare the part A dispersion and solution in advance; combine A. Homogenize until no undispersed particles remain. Continue batch with sidesweep agitation. Add B in order. Combine C, add to batch. Combine D; add to batch. Add E, insuring that each is well dispersed before proceeding.

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formula from Rona

Pearlescent Shampoo

Titanated mica pearl pigments can give unique "two color" iridescent effects, with appearance changing with angle of viewing.

	<u>Wt%</u>
A:	
Veegum HV, Magnesium Aluminum Silicate, (5% aqueous Susp.)	14.00
Hydroxypropylcellulose (5% aq. Soln.) (Klucel G)	20.00
Distilled Water	6.00
B:	
Distilled Water	q.s. to 100.00
TEA Lauryl Sulfate (Standapol T)	35.00
C:	
Coco-Betaine (Dehyton AB30)	10.00
Cocamide DEA (Standamid KD)	1.00
Hydroxycetyl Hydroxyethyl Dimonium Chloride (Dehyquart E)	2.00
D:	
Diazolidinyl Urea (Germall II)	0.25
Distilled Water	0.50
E:	
Titanium Dioxide (and) Mica (Timiron MP-1001)	0.20
0.02% D&C Red No. 33	2.00
0.02% FD&C Blue No. 1	1.00

Procedure:

Prepare the dispersions in advance; combine A. Homogenize until no undispersed particles remain. Continue batch with sidesweep agitation. Add B in order. Add C to batch in order, mixing each well. Combine D; add to batch. Add E in order, insuring that each is well dispersed before proceeding.

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formula from Rona

Pearlescent Shampoo

Phase #:		Wt%
1	5% Veegum HV suspension (aq)	14.00
1	5% Klucel G solution (aq)	20.00
1	Distilled water	6.00
2	Distilled water	12.30
2	Standapol T (TEA lauryl sulfate)	25.00
3	Citric Acid	0.10
3	Distilled water	2.00
4	Sodium Chloride	2.00
4	Distilled water	10.00
5	Methyl paraben	0.20
5	Germall II	0.30
6	TiO ₂ /mica (e.g. Timiron Super Gold)	0.10-0.30
7	Velvetex BA-35	5.00
8	Standamid KD	3.00
9	Water soluble dyes	q.s.

Procedure:

Prepare the Veegum and Klucel dispersions in advance, combine phase #1. Homogenize until no undispersed particles remain. Combine batch with sidesweep agitation. Add phase #2 ingredients in order. Combine phase #3; add to batch. Combine phase #4; add to batch. Add remaining ingredients in order, insuring that each is dispersed before proceeding.

SD1-67-1A:**Color Combinations:**

0.20% Timiron Super Red
0.25% D&C Red #33 (0.02% aq)

SD1-67-1E:**Color Combinations:**

0.2% Timiron Super Violet
1.0% FD&C Blue #1 (0.02% aq)
2.0% D&C Red #33 (0.02% aq)

SD1-67-1B:**Color Combinations:**

0.20% Timiron Super Gold
0.30% FD&C Blue #1 (0.02% aq)
0.40% FD&C Yellow #5 (0.02% aq)

SD1-67-II:**Color Combinations:**

0.20% Timiron MP-1001
1.00% FD&C Blue #1 (0.02% aq)
2.00% D&C Red #33 (0.02% aq)

SD1-67-1C:**Color Combinations:**

0.2% Timiron Super Gold
1.0% FD&C Blue #1 (0.02% aq)
2.0% D&C Red #33 (0.02% aq)

SD1-67-1J:**Color Combinations:**

0.20% Timiron Super Silver
0.10% FD&C Blue #1 (2% aq)

SOURCE: Rona/EM Industries, Inc.: Formulation SD1-67-1

Pearlescent Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Pearl	30.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.00-2.00
Water	68.50

Comments about this formula:

Blending Procedure:

Charge water into mixing vessel and slowly blend in Pearl. Mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 4,000-7,000 cPs (No. 4 Spindle @ 10rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: White, Pearlescent Liquid
 Viscosity @ 25C: 4,000-7,000 cPs
 pH: 6.0-7.0
 % Non Volatiles: 12.5-13.5

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Glycol Stearate, Fragrance, Preservative, PEG-45M, Citric Acid, Dye(s).
 Formulation SHM-020-01

Basic Shampoo Gel

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam ES-303	42.86
Calamide F	3.00
Sodium Chloride	3.00
Water	51.14

Comments about this formula:

1. The viscosity of this formula is 125,000 cPs. At 2.5% salt, the viscosity is 96,000 cPs.
2. Increasing the amide provides for higher viscosities at lower salt levels. For example, at 4% amide, a viscosity of 112,000 cPs is reached at 1.5% salt, and 230,000 cPs is reached at 2% salt.

Formulation SHM-018-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Pearlescent Shampoo

A pearlized shampoo utilizing Pationic ISL for mildness and Ritapan DL for conditional feel.

<u>Ingredients:</u>	<u>%W/W</u>
1. Pationic ISL (Sodium Isostearoyl Lactylate)	2.25
2. Ritapeg 150 DS (PEG-150 Distearate)	0.75
3. Rita EGDS (Glycol Distearate)	2.00
4. Sodium Laureth Sulfate (Standapol ES-2)	53.60
5. Distilled/Deionized Water	37.45
6. Methylparaben	0.15
7. Ritapan DL (Panthenol)	0.25
8. Laneto-50 (PEG-75 Lanolin)	0.75
9. Propylene Glycol	2.50
10. Perfume	0.20
11. Kathon CG	0.10
12. NaCl (25% Soln.)	q.s.

Compounding Procedure:

Heat items 1-7 to 70-75C. Add items 8 and 9. Cool to 40-45C. Add items 10-12.

Ref. No. 122-104

Salon Conditioning Shampoo

Optimized conditioning level is achieved through use of a Polyquta Cationic Polymer and Ritapan DL (Pro-Vitamin B-5).

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	40.00
2. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
3. Ritapeg 150 DS (PEG-150 Distearate)	0.50
4. Ritapan DL (dl-Panthenol)	0.50
5. Laneto-50 (PEG-75 Lanolin)	0.75
6. Polyquta 400 (Polyquaternium-10)	0.50
7. Kathon CG	0.03
8. Fragrance-Nature Harvest 165-050	0.30
9. Distilled/Deionized Water	49.42
10. Amanduline S.G. (Hydrolyzed Sweet Almond Protein)	5.00

Compounding Procedure:

Disperse item 6 in water at 165F. Add item 3 and mix until uniform. Then add item 4, 2, 1, and 5 in order and mix until uniform. Cool to 120F. Add items 7, 8 and 10.

Ref. No. 121-178

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pearlized Conditioning Shampoo
with Amilan GST 40
(cold process)

<u>Ingredients:</u>	<u>Weight%</u>
Water	46.00
Tetrasodium EDTA	0.10
Sodium Lauryl Sulfate (28%)	20.00
Sodium Laureth Sulfate (28% 2M. E.O.)	20.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Dimethicone Copolyol (Abil B 88183)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Cocamidopropyl Betaine (Tego Betaine F)	7.50
DATEM (Amilan GST 40)	1.50
Glycol Distearate and Steareth-4 (Tego Pearl N100)	2.50
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Sodium Chloride (25% Solution)	Visc. Adj.
Citric Acid (10%)	Adjust to pH 5.5-6.0 if needed

Procedure:

1. Add ingredients in order - mixing between additions.
2. Adjust viscosity with the Sodium Chloride.

SOURCE: Goldschmidt Chemical Co.: Suggested Formulation

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>Weight%</u>
Carbopol ETD 2020, 1.5%	77.70
Disodium EDTA	0.10
Calfoam TLS-40	20.00
Calamide C	2.00

Comments about this formula:

1. A 1.5% solution in water is prepared by dissolving the Carbopol at 40C.
2. The dispersion is slightly hazy with gel-like consistency.
3. Probably even a 1% solution would be suitable for this application.
4. The ingredients are gradually added into the Carbopol solution.
5. The blend turns clear upon Calfoam TLS-40 addition.
6. Stir until the blend is homogeneous.
7. Without adjustment the pH is 5-6.

SOURCE: Pilot Chemical Co.: Formulation SHM-004-01

Pearl Pigment Shampoo

	<u>Wt%</u>
Veegum HV, Magnesium Aluminum Silicate & (Klucel G) Hydroxypropyl Cellulose Solution	40.0
TEA Lauryl Sulfate (Texapon T42)	25.0
Citric Acid	0.1
Sodium Chloride	2.0
Preservative	0.2
Sicomet	0.5-0.2
Amaranth 85 E123 or Sicomet Blue S 42045 (Dyestuff Suspension 1%)	0.1-0.2
Titanium Dioxide (and) Mica (Timeron MP 1001 or Timeron S.I. Pigments)	0.1-0.2
Cocamidopropyl Betaine (Dehyton K)	5.0
Cocamide DEA (Comperlan KD)	3.0
Water, demineralized	q.s.

Procedure:

Composition of Veegum/Klucel Suspension: A) Veegum HV (5%) 35%; B) Klucel G (5%) 50%; Water 15%.

For the Veegum HV Suspension (A) hydrate 5% Veegum HV in water, followed by homogenization with (e.g.) an Ultra Turrax. For the Klucel G solution (B) add 5% Klucel G to the appropriate amount of water stirring continuously. This is followed by the addition of a preservative, e.g. Germall 115. Then the solution is allowed to swell for about 12 hours. The stock suspension (A) and solution (B) are mixed as assigned (A:35%, B:50%, C:15% water) and homogenized. To the resulting Veegum/Klucel suspension all other components are added in the order as indicated, while stirring. Developed by Dr. A. Thurn-Müller.

Formula from E. Merck

Pearlescent Conditioning Shampoo

	<u>Wt%</u>
A: Veegum HV, MAS (5% Disp.)	14.00
Hydroxypropyl Cellulose (5% Soln.) (Klucel G)	20.00
Distilled Water	11.50
B: Sodium Lauryl Sulfate (Standapol WAQ Spec.)	30.00
Hydrolyzed Collagen (Nutrilan L)	10.00
C: Sodium Chloride	1.00
Distilled Water	1.55
D: Diazolidinyl Urea (Germall II)	0.20
Distilled Water	1.55
E: Titanium Dioxide (and) Mica (Timeron Super Gold)	0.20
Coco-Betaine (Dehyton AB30)	10.00
Water soluble dyes, optional	q.s.

Procedure:

Prepare dispersions in advance; combine A. Homogenize until no undispersed particles remain. Continue batch with sidesweep agitation. Add B, in order. Combine C, add to batch. Combine D, add to batch. Add E in order, insuring that each is dispersed before proceeding.

Formula from Rona

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Salon Conditioning Shampoo

Optimized conditioning level is achieved through use of a Polyquta Cationic Polymer and Ritapan DL (Pro-Vitamin B-5).

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	54.35
2. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
3. Ritapeg 150 DS (PEG-150 Distearate)	1.00
4. Ritapan DL (dl-Panthenol)	0.25
5. Laneto-50 (PEG-75 Lanolin)	0.75
6. Polyquta 400 (Polyquaternium-10)	0.50
7. Sodium Chloride (25% Soln.)	0.25
8. Kathon CG	0.03
9. Fragrance-Nature Harvest 165-050	0.30
10. Distilled Water	37.87
11. Amanduline S.G. (Hydrolyzed Sweet Almond Protein)	5.00

Compounding Procedure:

Disperse item 6 in water at 165F. Add item 3 and mix until uniform. Then add item 4, 2, 1, 5 and 7 in order and mix until uniform. Cool to 120F. Add preservative and perfume. Adjust viscosity with NaCl.

Ref. No. 121-171

Conditioning Shampoo

A rich shampoo containing Amanduline SG and Pationic ISL for conditioning and hair repair.

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth Sulfate 29%	25.00
2. Sodium Lauryl Sulfate 29%	20.00
3. Ritamide C (Cocamide DEA)	5.00
4. Pationic ISL (Sodium Isostearoyl Lactylate)	3.50
5. Distilled/Deionized Water	40.80
6. Rita PEO-3 (PEG-23M)	0.50
7. Amanduline SG (Hydrolyzed Sweet Almond Protein)	5.00
8. Glydant	0.20

Compounding Procedure:

Disperse item 6 into item 5. Add items 1-4 and heat while mixing until uniform. Allow to cool to 40C. Add items 7 and 8.

Ref. No. 121-161C

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shampoo
All Purpose for Normal Hair

<u>Ingredients:</u>	<u>Weight%</u>
Water	50.00
Calfoam ES-303	40.00
Caltaine C-35	5.00
Calamide LL	1.50
Citric Acid	0.07
Fragrance, Dye(s)	0.00
NaCl	2.50

Comments about this formula:

1. Mix the first four ingredients.
 2. Add Citric Acid to adjust the pH to 5.5-6.5.
 3. Add the reported amount of salt. Salt content can be adjusted to achieve desired viscosity.
 4. Fragrance or dye compatibility were not evaluated.
- Formulation SHM-006-01

Shampoo
All Purpose for Oily Hair

<u>Ingredients:</u>	<u>Weight%</u>
Water	46.00
Calfoam SLS-30	25.00
Calfoam ES-303	25.00
Calamide LL	2.50
Citric Acid	0.10
Fragrance, Dye(s)	0.00
NaCl	1.00

Comments about this formula:

1. Mix the first four ingredients.
 2. Add enough Citric Acid to adjust the pH to 5.5-6.5.
 3. Fragrance or dye compatibility was not evaluated.
- Formulation SHM-007-01

Shampoo-Inexpensive

<u>Ingredients:</u>	<u>Weight%</u>
Water	45.70
NH4Cl	1.00
PEG-75 Lanolin	0.30
Calfoam ALS-30	50.00
Calamide C	3.00
Preservative	0.00
Fragrance, Dye	0.00

Comments about this formula:

1. The ingredients should be mixed in order reported.
 2. If needed, adjust pH to 5.5-6.5 with Citric Acid.
- Formulation SHM-009-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>%Wt.</u>
Carbopol ETD 2020 (1.5%)	77.70
Disodium EDTA	0.10
Calfoam TLS-40	20.00
Calamide C	2.00

Comments About this Formula:

Carbopol ETD 2020-Hydrophobically Modified Polyacrylic Acid
(Easy to Disperse)-B.F.Goodrich

1. A 1.5% solution in water is prepared by dissolving the Carbopol at 40C.
 2. The dispersion is slightly hazy with gel-like consistency.
 3. Probably even a 1% solution would be suitable for this application.
 4. The ingredients are gradually added into the Carbopol solution.
 5. The blend turns clear upon Calfoam TLS-40 addition.
 6. Stir until the blend is homogeneous.
 7. Without adjustment the pH is 5-6.
- Formulation #SHM-004-01

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>%Wt.</u>
Carbopol ETD 2020 (1.5%)	77.70
Disodium EDTA	0.10
Calfoam SLS-30	15.00
Calfoam ES-303	5.00
Calamide C	2.00

Comments About this Formula:

Carbopol ETD 2020 (Easy to Disperse)-Hydrophobically Modified
Polyacrylic Acid, B.F.Goodrich

1. A 1.5% solution is made by dispersing the Carbopol in 40C warm water and stirring.
 2. The dispersion is slightly hazy with gel-like consistency.
 3. Probably even a 1% solution would be suitable for this application.
 4. The ingredients are gradually added into the Carbopol solution and stirred until a homogeneous product is prepared.
- Formulation #SHM-005-01

SOURCE: Pilot Chemical Co.: Formulary

Shampoo-Clear Liquid Conditioning

<u>Ingredients:</u>	<u>Weight%</u>
Water	55.00
Calfoam ES-301	30.00
Caltaine C-35	6.50
Cocamidopropylamine Oxide	3.00
Calamide C	1.50
PEG-7 Glyceryl Cocoate	2.00
PEG-15 Cocopolyamine	2.00
Fragrance, Dye(s)	0.00
Preservative	0.00

Comments about this formula:

1. Add ingredients, one at a time, in the order given, under agitation.
2. Adjust pH to 6.5+/-0.5 With Citric Acid.
3. Small addition of salt can be used to adjust viscosity.

Formulation SHM-011-01

Shampoo - All Purpose

<u>Ingredients:</u>	<u>Weight%</u>
Water	51.20
Calfoam ES-302	40.00
Caltaine C-35	5.00
Calamide C	3.00
NaCl	0.75
Kathon CG	0.05

Comments about this formula:

1. Mix ingredients as listed.
2. Adjust pH to 6.3 with Citric Acid.
3. Formula is similar to SHM-006-0.

Formulation SHM-010-01

Shampoo - Clear Liquid

<u>Ingredients:</u>	<u>Weight%</u>
Water	60.70
n-coco Beta Amino Propionic Acid	7.00
Calfoam TLS-40	28.00
Calamide LL	4.00
Fragrance	0.00
Sodium Chloride	0.25
Kathon CG	0.05

Comments about this formula:

1. Add ingredients in the order given under adequate agitation. (if fragrance is added, pre-mix it with Calamide LL).
2. Adjust to pH 6.5 with Citric Acid.
3. Adequate agitation is important-otherwise gel-like particles will form upon standing for a few days.

Formulation SHM-013-01

Shampoo - Clear Viscous

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	30.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.00-2.00
Water	68.50

Comments about this formula:**Blending Procedure:**

Charge water into mixing vessel and slowly blend in Clear. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 3,000-5,000 cPs (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid
 Viscosity @ 25C: 3,000-5,000 cPs
 pH: 6.0-7.0
 % Non Volatiles: 11.5-12.5

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation SHM-019-01

Shampoo-Conditioning

<u>Ingredients:</u>	<u>Weight%</u>
Water	57.85
Calfoam SLS-30	35.00
Calamide LL	3.00
Calamide C	0.50
Silicone Dimeramidoquat	2.00
EG Monostearate	0.50
NaCl	1.00
Preservative, Dye, Fragrance*	9.50

Comments about this formula:

1. Mix ingredients in order reported while heating to about 60C.
2. Cool before adding fragrance.
3. Add preservative and dye as needed.
4. Adjust pH to 6 with Citric Acid.

*Fragrance, Fragrance #S-5704 - Fine Flavors & Fragrances, Inc
 Formulation SHM-017-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Shampoo-Concentrate

<u>Ingredients:</u>	<u>%Wt.</u>
Water	12.75
Propylene Glycol	8.00
Calfoam TLS-40	20.00
Calamide C	12.50
Calamide LL	12.50
Calfoam ALS-30	26.00
Citric Acid	0.75
NaCl	7.50

Comments About this Formula:

1. Mix water and Propylene Glycol.
 2. Add the next three ingredients into the water/PG solution.
 3. The last surfactant added is ALS-30; the blend becomes viscous.
 4. Adjust the pH with Citric Acid (pH 6-7).
 5. Add NaCl last. The concentrate is very viscous.
 6. Add Perfume, Dye(s) and Preservative as desired.
 7. Finished shampoo can be made by diluting 1 part concentrate with 7-15 parts water.
- Formulation #SHM-008-01

Shampoo
Clear Liquid Conditioning

<u>Ingredients:</u>	<u>%Wt.</u>
Water	55.00
Calfoam ES-301	30.00
Caltaine C-35	6.50
Cocamidopropylamine Oxide	3.00
Calamide C	1.50
PEG-7 Glyceryl Cocoate	2.00
PEG-15 Cocopolyamine	2.00
Fragrance, Dye(s)	0.00
Preservative	0.00

Comments About this Formula:

1. Add ingredients, one at a time, in the order given, under agitation.
 2. Adjust pH to 6.5+-0.5 with Citric Acid.
 3. Small addition of salt can be used to adjust viscosity.
- Formulation #SHM-011-01

SOURCE: Pilot Chemical Co.: Formulary

Shampoo-Concentrate

<u>Ingredients:</u>	<u>Weight%</u>
Water	12.75
Propylene Glycol	8.00
Calfoam TLS-40	20.00
Calamide C	12.50
Calamide LL	12.50
Calfoam ALS-30	26.00
Citric Acid	0.75
NaCl	7.50

Comments about this formula:

1. Mix water and Propylene Glycol.
 2. Add the next three ingredients into the water/PG solution.
 3. The last surfactant added is ALS-30; the blend becomes viscous.
 4. Adjust the pH with Citric Acid (pH 6-7).
 5. Add NaCl last. The concentrate is very viscous.
 6. Add Perfume, Dye(s) and Preservative as desired.
 7. Finished shampoo can be made by diluting 1 part concentrate with 7-15 parts water.
- Formulation SHM-008-01

Shampoo-Cream

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Calfoam SLS-30	45.00
Stearic Acid	7.50
PEG-5 Soya Sterol	1.00
Part B:	
Water	43.50
NaOH, 50%	1.00
NaCl	2.00

Comments about this formula:

1. Heat Part A and Part B (separately) to 70C with agitation.
 2. Add Part A to Part B.
 3. Cool while stirring.
 4. Add Perfume, Dye(s) and Preservative as needed at 45C.
 5. The Ethoxylated Soya Sterol provides a desirable after shampoo sheen to the hair.
- Formulation SHM-012-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Shampoo-Cream

<u>Ingredients:</u>	<u>%Wt.</u>
Calsoft T-60	22.00
Calamide O	4.75
Calfoam EA-603	16.00
Stearic Acid	7.00
NaOH, 50% Solution	0.50
Citric Acid	0.10
Water	49.65

Comments About This Formula:

1. Mix the first four ingredients together.
2. Apply heat to melt the Stearic Acid (75C).
3. Add Caustic and Citric Acid into water and heat to about 60-70C.
4. Add the solution into the surfactant blend with stirring.
5. Cool the product while stirring.
6. The product is a soft cream

Formulation #SHM-001-01

Shampoo

<u>Ingredients:</u>	<u>%Wt.</u>
Water	74.45
Calfoam SLS-30	5.00
Calfoam ES-303	16.00
Calamide C	2.00
Citric Acid	0.10
Sodium Chloride	2.50
Perfume & Dye	0.10

Comments About this Formula:

1. Mix the first four ingredients (pH=10).
2. Add Citric Acid (approximately 0.1%) to adjust pH to about 6.
3. Add salt to the desired viscosity.
4. Perfume and dye as desired.

Formulation #SHM-003-01

SOURCE: Pilot Chemical Co.: Formulary

Shampoo with Silicone

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	47.390g
2 Polymer JR 400	0.500g
3 Kathon CG 100	0.100g
Stage B:	
4 Sodium Laureth Sulphate (SLES)	18.000g
5 Empicol TL 40t	17.500g
6 Texapon SBN	9.500g
Stage C:	
7 Empilan EGMS	1.000g
8 Empilan LDE	2.000g
Stage D:	
9 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	4.000g
Stage E:	
10 Sodium Hydroxide 33%	0.010g

Mixing Instructions:

Weigh out water and start heating. Disperse Polymer JR and add Kathon.

Add items of Part B and bring to 65/70C.

Stir in items of Part C and stir until dissolved, more heating may be required.

Add Silicone CM2139-D1 and Silverson mix - do not introduce air - Adjust pH. Cool with slow stirring.

SOURCE: A & E Connock Ltd.; Project JW 2465/Formula Ref.: 1067*0

Gentle Everyday Shampoo

This mild shampoo is suitable for everyday use. A clear, water-white, viscous shampoo with excellent heat stability.

<u>Ingredients:</u>	<u>Weight%</u>
Distilled water	q.s. to 100.00
Sodium laureth sulfate, 28%	19.60
Cocamidopropyl betaine, 35%	11.00
Sodium lauroyl sarcosinate, 30%	9.60
PEG-150 distearate	2.90
Benecel MP 943 R	1.10
Methylchloroisothiazolinone and methylisothiazoline, 1.5%	0.08

Procedure:

1. Disperse the Benecel by adding to the vortex of well-agitated water. Heating to 40-45C will accelerate hydration. Mix until fully dissolved.
2. Add the surfactants, one at a time, mixing well between each addition.
3. Heat to 70-75C. Add the PEG-150 distearate. Mix until dissolved. Turn heat off.
4. When temperature reaches 40C or below, add fragrance and preservative.

SOURCE: Aqualon; Bulletin VC-526D: Performance of Benecel

Temporary Color-In Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	36.40
Tetrasodium EDTA	0.05
Cocamidopropyl Betaine (Tego Betaine E)	7.00
Lauryl Glucoside (Tego Glucosid 1216)	6.50
Propylene Glycol	1.25
PEG-18 Glyceryl Oleate Cocoate (Antil 171)	2.00
Cocamidopropylamine Oxide (Aminoxid WS 35)	5.00
Quaternium-80 (Abil Quat 3272)	0.30
Disodium Cocoamphodipropionate	18.00
Phase B:	
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
Basic Blue 99)	
Basic Brown 16)	Blend as needed
Acid Violet 43)	for color
Basic Red 76)	1.00
Basic Yellow 57)	
Water	20.00
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.
Phase D:	
Citric Acid 25% Solution	to pH 6.5
Procedure:	
1. Heat the water of Phase A to 50C. Add the remaining ingredients of Phase A in order, mixing between additions.	
2. Combine the ingredients of Phase B. Mix until uniform.	
3. Combine the ingredients of Phase C. Mix. Heat to 50C.	
4. Add Phase B to Phase C. Mix well.	
5. Add Phase B/C to Phase A. Mix.	
6. Cool to 40C. Adjust pH and fragrance.	
SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations	

Shampoo-Cream

<u>Ingredients:</u>	<u>Weight%</u>
Calsoft T-60	22.00
Calamide O	4.75
Calfoam EA-603	16.00
Stearic Acid	7.00
NaOH, 50% Solution	0.50
Citric Acid	0.10
Water	49.65
Comments about this formula:	
1. Mix the first four ingredients together.	
2. Apply heat to melt the Stearic Acid (75C).	
3. Add Caustic and Citric Acid into water and heat to about 60-70C.	
4. Add the solution into the surfactant blend with stirring.	
5. Cool the product while stirring.	
6. The product is a soft cream.	
SOURCE: Pilot Chemical Co.; Formula SHM-001-01	

Transparent Shampoo

	<u>Weight%</u>
Miracare MPC	25.0
Citric Acid (to pH 5.5-6.5)	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	0.6-1.6
Water	74.0

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare MPC. Mix until completely uniform. Adjust formulation pH to 5.5-6.5 with Citric Acid as needed. Add compatible Fragrance, Dye(s), and Preservative. Adjust formulation viscosity to desired consistency with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C: Clear Liquid
 Viscosity @ 25C: 4,000-6,000 cps
 pH: 5.5-6.5
 % Non Volatiles: 10-12

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Sodium Chloride, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

SOURCE: Rhone Poulenc Surfactants & Specialties: Formula 91-1008

Shampoo

	<u>Weight%</u>
Water	74.40
Calfoam SLS-30	5.00
Calfoam ES-303	16.00
Calamide C	2.00
Citric Acid	0.10
NaCl	2.50
Fragrance, Dye	Q.S.
Pilot Formula #SHM-003-01	

All Purpose Shampoo

	<u>Weight%</u>
Water	51.20
Calfoam ES-302	40.00
Caltaine C-35	5.00
Calamide C	3.00
NaCl	0.75
Kathon CG	0.05
Pilot Formula #SHM-010-01	

SOURCE: Pilot Chemical Co.: Personal Care Formulations

Water White Shampoo from a Blend

	<u>% by Weight</u>
Agent 1829-50*	25.00
Sodium Chloride	0.50
D.I. Water	Q.S. to 100.00
DMDM Hydantoin	0.20
Citric Acid (50%)	0.11
Sodium Chloride	Q.S.

Mixing Procedure:

Mix first four ingredients together. Adjust pH to 6.5-7.0 with 50% citric acid.

Additional sodium chloride may be added to increase viscosity.

*Contains Ammonium Lauryl Sulfate, Sodium Laureth Sulfate, Lauramide DEA, Citric Acid

Premium Water White Shampoo

	<u>% by Weight</u>
Stepan-Mild LSB	25.0
Steol CS-330	10.0
Amphosol CA	10.0
Ninol 40-CO	3.0
D.I. Water	Q.S. to 100.0
Citric Acid (50%)	Q.S.
Kathon CG	0.06
Sodium Chloride	Q.S.

Mixing Procedure:

Mix first five ingredients together. Adjust pH to 6.5-7.0 with citric acid. Add preservative.

Sodium chloride may be added to increase viscosity.

Water White Shampoo

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepan-Mild LSB	24.0
Steol CA-130	15.4
Ninol 96-SL	2.0
DMDM Hydantoin	0.25
Citric Acid (50%)	Q.S.
Sodium Chloride	1.0

Mixing Procedure:

Mix first four ingredients together with heat. (Heating to 150F). Mix for 30 minutes. Cool to room temperature with mixing. Add DMDM Hydantoin and adjust pH to 5.5-6.5 with citric acid. Viscosity can be adjusted with additional sodium chloride.

SOURCE: Stepan Co.: Suggested Formulations

3 in 1 Antidandruff Shampoo
17.2% active ingredient

<u>Recipe:</u>	<u>Weight%</u>
A Octopirox	0.40
B Water	10.00
C Genapol LRO liquid	30.00
Hostapon KCG	5.00
Genamin KSL	2.00
Cetiol HE	1.00
Belsil DMC 6032	2.00
Merquat 550	5.00
Fragrance	0.30
D Water	30.30
E Glucamate DOE 120	1.00
F Genagen CAB	8.00
Genapol L-3	2.00
Genapol TSM	3.00

Procedure:

- 1 Mix A with B.
 - 2 Add the components of C to 1 and stir well.
 - 3 Dissolve E in D, add to 1 and stir well.
 - 4 Stir the components of F one after another into 1.
 - 5 Adjust the pH to 6.0
- Formula BI/6142

Hair Shampoo

For daily use, clear, 15.8% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Genapol LRO liquid	30.00
B Genapol AMG	8.00
Hostapon KCG	5.00
Fragrance	0.30
Water	46.70
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB	6.00
Genapol L-3	2.00
C Sodium chloride	2.00

Procedure:

- 1 Stir the components of B one after another into A.
 - 2 If necessary adjust the pH.
 - 3 Finally adjust the viscosity with C.
- Formula BI/1130

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Section IX

Shaving Products

Brushless Shave Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	78.193
Glycerine	5.000
Triethanolamine	0.857
B:	
Methocel 40-100 (Dow)	0.100
C:	
Stearic Acid	10.000
Stearyl Alcohol	0.500
Acetylated Lanolin Alcohol	1.500
White Protopet 1S (Witco)	1.500
Glyceryl Stearate SE	1.500
D:	
Deionized Water	0.500
Dowicil 200 Antimicrobial	0.200
E:	
Perfume Oil-Almond	0.150

Procedure:

Mix A at room temp. 10 min., then add B and mix until completely dissolved. Begin heating A&B and, in separate vessel, combine and heat C ingredients. When both mixtures are between 75 and 80C, combine with rapid agitation. When batch cools below 45C add D. Add E when batch is below 40C.

Brushless Shave Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	78.193
Glycerine	5.000
B:	
Methocel 40-100	0.100
C:	
Triethanolamine	0.857
D:	
Stearic Acid	10.000
Stearyl Alcohol	0.500
Acetylated Lanolin Alcohol	1.500
White Fonoline Petrolatum (Witco)	1.500
Glyceryl Stearate SE	1.500
E:	
Deionized Water	0.500
Dowicil 200 Preservative	0.200
F:	
Perfume Oil (Almond)	0.150

Procedure:

Mix A ingredients at room temp. for 10 mins., then add B with agitation, then C. The dispersed Methocel will hydrate in about 15 mins. Begin heating the solution and in a separate vessel combine and heat D. When both mixtures are 75-80C combine with rapid agitation. When batch cools to 45C add E. Add F when batch is below 40C.

SOURCE: Witco Corp.; Suggested Formulations

Non-Foaming Shaving Gel

This non-foaming shave gel is uniquely designed to give excellent razor glide without using water. Areas of suggested use are as a travel shaving gel, an ethnic product or for problem skin where blemishes or other sensitive areas are visible.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Standamid LD	5.50
1	Steol CS-460	4.50
1	Lipocol O/95	3.00
1	Lipocol S-20	6.50
1	Liponate IPM	5.00
1	Liponic EG-1	10.00
1	Ultraol 70 NF	15.00
1	Panalene L-14E	5.00
2	Deionized Water	45.25
2	Methylparaben	0.25

Procedure:

1. Premix Sequence #1 ingredients and heat to 80C with medium speed on overhead mixer.
2. Heat Premixed Sequence #2 to 80C and mix until the methylparaben is completely solubilized.
3. Add Sequence #2 to Sequence #1 with medium speed and slowly allow to cool.

SOURCE: Lipo Chemicals Inc.; Formulation No. 898

After Shave Balm

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
SD Alcohol 40A	30.00
Water	30.00
Carbomer 940	0.40
Phase B:	
Water	5.74
Triethanolamine	0.56
Allantoin	0.20
Phase C:	
Glyceryl Stearate (and) Ceteth-20 (Teginacid H)	0.75
Steareth-7 (and) Stearyl Alcohol (and) Steareth-10 (Emulgator 2155)	0.75
Decyl Oleate (Tegosoft D0)	3.00
Isopropyl Stearate (Tegosoft S)	3.00
Menthol	0.05
Phase D:	
Water	25.55
Phase E:	
Fragrance	Q.S.

Procedure:

1. Disperse the Carbomer in the water and alcohol.
2. Mix Phase B and add to Phase A. Mix well.
3. Heat Phase C to 80C.
4. Heat the water (Phase D) to 80C and add to Phase C. Begin homogenization and cool to 50C.
5. Using sweep mixer, add Phase A/B to Phase C/D. Homogenize. Sweep mix cool to 30C. Dispense.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulation

Shave Gel

The rich lather of this shaving gel has good foam and lubricity with low irritancy characteristics.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	53.73
2. Sodium Laureth Sulfate	26.67
3. Pationic 138C (Sodium Laurethyl Lactylate)	10.00
4. Ritamide C (Cocamide DEA)	4.00
5. Ritapeg 150 DS (PEG-150 Distearate)	2.00
6. Titanium Dioxide	0.50
7. Rita PEO-1 (PEG-5M)	0.10
8. Methylparaben	0.10
9. Perfume	0.20
10. Glydant	0.20
11. Triethanolamine 50%	+ -2.00
12. Sodium Chloride (25% solution)	+ -0.50

Compounding Procedure:

Heat items 1-8 to 165F while mixing. Neutralize to pH 7.5 with Triethanolamine. Cool to 120F and add items 9 and 10. Adjust viscosity with Sodium Chloride solution.

Ref. No. 122-91

Low Alcohol Moisturizing Lotion

A moisturizing, low alcohol, opaque aftershave, which has a cooling, soothing skin-tightening feel with a substantive after-feel from the Patlac IL and Pationic ISL.

<u>Ingredients:</u>	<u>%W/W</u>
1. Acritamer 941 (Carbomer)	0.75
2. Distilled/Deionized Water	81.61
3. Patlac IL (Isostearyl Lactate)	1.00
4. Ritapro 165 (Glyceryl Stearate and PEG-100 Stearate)	0.50
5. Pationic ISL (Sodium Isostearoyl Lactylate)	1.00
6. Rita CA (Cetyl Alcohol)	0.50
7. Myristyl Lactate	1.00
8. Triethanolamine (50%)	0.64
9. Alcohol SD 40	12.00
10. Perfume, A.S. Type	1.00

Compounding Procedure:

NOTE: A sweep agitator is recommended for this product.

Weigh items 1-2 and items 3-7 and heat to 165F. Slowly add items 3-7 to items 1-2, taking care not to entrap air. Cool to 140F. Add items 8-9. Cool to 110F and add item 10. Adjust pH to 5.3. Pour into containers.

Viscosity: Brookfield RVF Heliopath TA @ 10 rpm @ 27C: 6460cps
Ref. No. 122-90

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Section X

Soaps and Hand Cleaners

Anti-Bacterial Handsoap

<u>Ingredients:</u>	<u>%Wt</u>
CalBlend Clear	35.0
Nipacide PX	0.75
Propylene Glycol	1.50
Versene 100	0.20
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	62.55

Comments About this Formula:**Blending Procedure:**

With smooth agitation, slowly blend CalBlend Clear and Versene 100 into water and mix until uniform. In a separate mixing vessel, disperse Nipacide PX in propylene glycol and, with smooth agitation, warm slightly until clear and uniform. With smooth agitation, slowly blend the propylene glycol/PX mixture into the main CalBlend Clear system and stir until uniform. Add compatible fragrance, dye and preservative. If desired, the viscosity of the system may be increased with the trace addition (0.05-0.25%) of sodium chloride or decreased with the addition (0.2-0.5%) of propylene glycol as needed.

Typical Formulation Properties:

Active Ingredient: Chloroxylenol

Appearance: Clear Liquid

Viscosity @ 25C: 6,000-10,000 cps

pH: 6.5-7.5

CTFA Identification: Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Tetrasodium EDTA, Citric Acid, Dye(s).

SOURCE: Pilot Chemical Co.: Formulation #HAN-019-01

Baby Mild Cleansing Bar
(Formula 91-1103)

This high foaming cleansing bar is mild enough for baby use. Therefore, it is perfect for anyone who wants a good cleansing product for sensitive skin. Its non-alkaline formula gently cleanses the skin without the drying effects of soap. Its emollients and moisturizers leave the skin feeling clean, soft and smooth.

	<u>% by Weight</u>
Step A:	
Geropon AS-200 (Rhone-Poulenc)	64.0
Stearic Acid, Triple Pressed	Q.S.
Wickeno1 550 (CasChem)	6.0
Titanium Dioxide	0.2
Step B:	
DV-3284* (Rhone-Poulenc)	6.0
Step C:	
Water	4.0
Sodium Chloride	0.4
Step D:	
Fragrance, Dye(s), Preservative	Q.S.

*DV-3284 is a 55% aqueous solution of Sodium Isethionate

Blending Procedure:

Step A:

Blend the dry components (Geropon AS-200, Stearic Acid, Wickeno1 550, Titanium Dioxide) in a powder mixer.

Step B:

Slowly and evenly, add the DV-3284 to Step A to avoid wet spots.

Step C:

Dissolve the Sodium Chloride and any other water soluble components in the water and uniformly add to Steps A and B to avoid wet spots.

Step D:

Finally, add the fragrance evenly to the batch. When uniformly mixed, mill and/or refine the batch until it is homogeneous. Extrude and stamp into bars.

Typical Formulation Properties:

Appearance: Opaque Bar

pH (5% dispersion): 5-6

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Hand CleanersAnti-Bacterial Handsoap

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	35.00
Nipacide PX	0.75
Propylene Glycol	1.50
Versene 100	0.20
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	62.55

Comments about this formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear and Versene 100 into water and mix until uniform. In a separate mixing vessel, disperse Nipacide PX in propylene glycol and, with smooth agitation, warm slightly until clear and uniform. With smooth agitation, slowly blend the propylene glycol/PX mixture into the main CalBlend Clear system and stir until uniform. Add compatible fragrance, dye and preservative. If desired, the viscosity of the system may be increased with the trace addition (0.05-0.25%) of sodium chloride or decreased with the addition (0.2-0.5%) of propylene glycol as needed.

Typical Formulation Properties:

Active Ingredient: Chloroxylenol
 Appearance: Clear Liquid
 Viscosity @ 25C: 6,000-10,000 cps
 pH: 6.5-7.5

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Tetrasodium EDTA, Citric Acid, Dye(s).
 Formulation HAN-019-01

Waterless Liquid

<u>Ingredients:</u>	<u>Weight%</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS (Ethylene Glycol Monostearate)	5.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	39.00

Comments about this formula:

Part A: White Mineral Oil, Kerosene, EGMS, and Calimulse PRS.
 Combine and heat to 160F to melt EGMS.

Part B: Propylene Glycol, Ethoxy Lanolin and water. Combine and heat to 160F. Combine parts A and B.

Part C: Dye and Perfume if desired. Cool A and B, blend below 110F before adding.

Formulation HAN-009-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner, Heavy Duty**Phase A:****Ingredients:**

	<u>%Wt</u>
d-Limonene	35.00
Caloxylate N-9	13.00
Pilot SXS-40	4.00

Phase B:**Ingredients:**

	<u>%Wt</u>
Water	30.00
Calsoft AOS-40	4.00
Calfax 10L-45	10.00
Calamide C	4.00

Comments About This Formula:

Propylene Glycol can be used instead of SXS-40.

Phase A-Organic Phase:

Mix the ingredients in order listed. Upon SXS-40 addition, the blend is slightly hazy (the blend is clear when Propylene Glycol is used).

Phase B-Aqueous Phase:

Mix the ingredients in order listed.

Add Phase A into Phase B with vigorous mixing. A white creamy paste is formed. This is a good grease cutting hand cleaner.

Formulation #HAN-004-01

Hand Cleaner, Liquid, Soap**Ingredients:**

	<u>%Wt</u>
Calfoam SLS-30	27.64
Caltaine C-35	5.00
Calamide C	3.04
EGMS	1.77
Citric Acid	0.09
Kathon CG	0.09
Nipacide PX	0.09
Water	62.01
Ammonium Chloride	0.25

Formulation #HAN-005-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersLiquid Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Deodorized Kerosene	53.00
White Mineral Oil	5.00
Calsuds CD-6	9.50
Water	32.40
Perfume	0.10

Comments about this formula:

Part A: Kerosene, White Oil, and Calsuds CD-6. Blend and heat to 70C.

Part B: Water. Heat separately to 70C. Then combine and mix with Part A.

Part C: Perfume. Cool Part A and B mixture to 25C before adding Part C.

Formulation HAN-001-01

Liquid Dispenser Type: Pearlescent

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam SLS-30	25.00
EGMS (Ethylene Glycol Monostearate)	2.00
Calamide LL	5.00
Kathon CG	0.20
Perfume, Color	0.10
Water	67.60
Citric Acid	0.10

Comments about this formula:

1. Warm to 140F to disperse the EGMS.
2. Viscosity 1,200 cPs.

Formulation HAN-002-01

Liquid Dispenser Type: Pearlescent

<u>Ingredients:</u>	<u>Weight%</u>
Calsuds CD-6	15.00
Calsoft LAS-99	3.70
Pilot SXS-40	1.25
Opacifier	1.00
Kathon CG	0.50
Water	78.55

Comments about this formula:

Add ingredients in order listed.

Formulation HAN-003-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaners**Liquid Soap**

Ingredients:	Weight%
Calfoam SLS-30	27.64
Caltaine C-35	5.00
Calamide C	3.04
EGMS (Ethylene Glycol Monostearate)	1.77
Citric Acid	0.09
Kathon CG	0.09
Nipacide PX	0.09
Water	62.01
Ammonium Chloride	0.25
Comments about this formula:	
Mix all the ingredients in order listed.	
Formulation HAN-005-01	

Liquid Soap

Ingredients:	Weight%
Calfoam SLS-30	28.00
Caltaine C-35	5.00
Calamide C	3.00
EGMS (Ethylene Glycol Monostearate)	1.00
Propylene Glycol	1.00
PEG 46M	0.50
Kathon CG	0.05
Citric Acid	0.20
Comments about this formula:	
1. Ingredients 1-6 combined and heated to 70C to melt EGMS.	
2. Kathon CG added after cooling before adjusting pH.	
3. Sodium Chloride (1%) can be added to adjust the viscosity (increase).	
Formulation HAN-016-01	

Liquid, Soap, Antiseptic

Ingredients:	Weight%
Calfoam SLS-30	27.42
Calsoft T-60	5.00
Calamide C	3.02
EGMS (Ethylene Glycol Monostearate)	1.76
Citric Acid	0.08
Kathon CG	0.09
Nipacide PX	0.09
Water	61.54
Ammonium Chloride	1.00
Comments about this formula:	
1. Combine ingredients 1-5 and heat to 55C to melt EGMS.	
2. Cool below 50C before adding Kathon and Nipacide.	
3. Add Citric Acid to adjust pH.	
4. Add Ammonium Chloride to adjust the viscosity.	
Formulation HAN-017-01	
SOURCE: Pilot Chemical Co.: Suggested Formulations	

Hand Cleaner-Liquid
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Deodorized Kerosene	53.00
White Mineral Oil	5.00
Calsuds CD-6	9.50
Water	32.40
Perfume	0.10

Comments About this Formula:

Part A: Kerosene, White Oil, and Calsuds CD-6.
Blend and heat to 70C.

Part B: Water. Heat separately to 70C then combine and mix with Part A.

Part C: Perfume. Cool Part A & B mixture to 25C before adding Part C.

Formulation #HAN-001-01

Hand Cleaner-Liquid
Dispenser Type, Pearlescent

<u>Ingredients:</u>	<u>%Wt</u>
Calfoam SLS-30	25.00
EGMS	2.00
Calamide LL	5.00
Kathon CG	0.20
Perfume, Color	0.10
Water	67.60
Citric Acid	0.10

Comments About this Formula:

1. EGMS-Ethylene Glycol Monostearate
2. Warm to 140F to disperse the EGMS.
3. Viscosity~1,200 cPs.

#HAN-002-01

Hand Cleaner-Liquid
Dispenser Type, Pearlescent

<u>Ingredients:</u>	<u>%Wt</u>
Calsuds CD-6	15.00
Calsoft LAS-99	3.70
Pilot SXS-40	1.25
Opacifier	1.00
Kathon CG	0.50
Water	78.55

Formulation #HAN-003-01

SOURCE: Pilot Chemical Co.: Formulary

Hand Cleaner, Liquid, Soap
Antiseptic

<u>Ingredients:</u>	<u>%Wt</u>
Calfoam SLS-30	27.42
Calsoft T-60	5.00
Calamide C	3.02
EGMS	1.76
Citric Acid	0.08
Kathon CG	0.09
Nipacide PX	0.09
Water	61.54
Ammonium Chloride	1.00

Comments About this Formula:

EGMS-Ethylene Glycol Monostearate.

1. Combine ingredients 1-5 and heat to 55C to melt EGMS.
2. Cool below 50C before adding Kathon and Nipacide.
3. Add Citric Acid to adjust pH.
4. Add Ammonium Chloride to adjust the viscosity.

Formulation #HAN-017-01

Handsoap-Clear Liquid

<u>Ingredients:</u>	<u>%Wt</u>
CalBlend Clear	30.0
Fragrance, Dye	Q.S.
Preservative	Q.S.
Sodium Chloride	1-2
Water	68.5

Comments About this Formula:**Blending Procedure:**

Charge water into mixing vessel and slowly blend in Clear. Mix until completely uniform. Add compatible fragrance, dye and preservative. Adjust formulation viscosity to 3,000-5,000 cps (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid

pH: 6.0-7.0

Viscosity @ 25C: 3,000-5,000

% Non Volatiles: 11.5-12.5

CTFA Identification: Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #HAN-018-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersPowder Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Calsoft F-90	2.00
Pilot SXS-96	1.00
Sodium Sesquicarbonate	86.80
Borax Crystals	10.00
Color & Perfume	0.20

Comments about this formula:

1. Blend Calsoft F-90, SXS-96, and Sesquicarbonate.
 2. Add Borax.
 3. Add perfume and dye by overspraying.
- Formulation HAN-006-01

Powder Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Sodium Sulfate	71.70
Sodium Sesquicarbonate	15.90
Calsoft F-90	12.00
Triton X-100	0.40

Comments about this formula:

1. Triton X-100 used as anti-dusting agent.
 2. Formula has higher bulk density than HAN-007.
- Formulation HAN-008-01

Powder Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Sodium Sesquicarbonate	85.30
Calsoft F-90	14.20
Triton X-100	0.50

Comments about this formula:

- Triton X-100 used as anti-dusting agent.
- Formulation HAN-007-01

SOURCE: Pilot Chemical Co.; Suggested Formulations

Hand Cleaner, Powder
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Calsoft F-90	2.00
Pilot SXS-96	1.00
Sodium Sesquicarbonate	86.80
Borax Crystals	10.00
Color & Perfume	0.20

Comments About this Formula:

1. Blend Calsoft F-90, SXS-96, and Sesquicarbonate.
 2. Add Borax.
 3. Add perfume and dye by overspraying.
- Formulation #HAN-006-01

Hand Cleaner-Powder
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Sodium Sesquicarbonate	85.30
Calsoft F-90	14.20
Triton X-100	0.50

Comments About this Formula:

- Triton X-100 used as anti-dusting agent.
Formulation #HAN-007-01

Hand Cleaner-Powder
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Sodium Sulfate	71.70
Sodium Sesquicarbonate	15.90
Calsoft F-90	12.00
Triton X-100	0.40

Comments About this Formula:

1. Triton X-100 used as anti-dusting agent.
 2. Formula has higher bulk density than HAN-007.
- Formulation #HAN-008-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersHandsoap-Clear Liquid

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	30.00
Fragrance, Dye	Q.S.
Preservative	Q.S.
Sodium Chloride	1.00-2.00
Water	68.50

Comments about this formula:

Blending Procedure:

Charge water into mixing vessel and slowly blend in Clear. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 3,000-5,000 cps (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid

Viscosity @ 25C: 3,000-5,000 cps

pH: 6.0-7.0

% Non Volatiles: 11.5-12.5

CTFA Identification:

Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation HAN-018-01

Heavy Duty

<u>Phase A Ingredients:</u>	<u>Weight%</u>
d-Limonene	35.00
Caloxylate N-9	13.00
Pilot SXS-40	4.00

Phase B Ingredients:

Water	30.00
Calsoft AOS-40	4.00
Calfax 10L-45	10.00
Calamide C	4.00

Comments about this formula:

Propylene Glycol can be used instead of SXS-40.

Phase A-Organic Phase: Mix the ingredients in order listed. Upon SXS-40 addition, the blend is slightly hazy (the blend is clear when Propylene Glycol is used).

Phase B-Aqueous Phase: Mix the ingredients in order listed.

Add Phase A into Phase B with vigorous mixing. A white creamy paste is formed. This is a good grease cutting hand cleaner.

Formulation HAN-004-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner, Waterless, Liquid

<u>Ingredients:</u>	<u>%Wt</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS	5.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	39.00

Comments About this Formula:

EGMS-Ethylene Glycol Monostearate.

Part A: White Mineral Oil, Kerosene, EGMS, and Calimulse PRS.
Combine and heat to 160F to melt EGMS.

Part B: Propylene Glycol, Ethoxy Lanolin and water. Combine
and heat to 160F. Combine parts A & B.

Part C: Dye and Perfume if desired. Cool A & B, blend below
110F before adding.

Formulation #HAN-009-01

Hand Cleaner-Waterless Paste

<u>Ingredients:</u>	<u>%Wt</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS	10.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	34.00

Comments About this Formula:

Part A: Ingredients 1-4. Heat and mix to 160F.

Part B: Ingredients 5-7. Heat and mix to 160F. Combine "A" and
"B".

Part C: Perfume. Cool "A" and "B", blend below 100F before
adding. Package immediately, forms a paste on cooling.

Formulation #HAN-010-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersWaterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Oleic Acid	1.60
Triethanolamine 85%	0.40
Caloxylate N-9	11.00
Calamide CWT	4.00
d-Limonene	34.00
Water, D.I.	49.00

Comments about this formula:

1. Combine ingredients 1-5 and heat to 80C with mixing.
2. Slowly add water while maintaining temperature.
3. Forms a gel on cooling.

Formulation HAN-013-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Calamide CWT	10.50
Caloxylate N-9	6.00
Lauramine Oxide	0.50
d-Limonene	40.00
Glycerol	1.50
Water, D.I.	41.50

Comments about this formula:

Part A: Ingredients 1-4, combine and heat to 70C.

Part B: Combine and heat ingredients 5 and 6 to 70C. Combine with Part "A". Package before cooling.

Formulation HAN-014-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Caloxylate N-9	2.50
d-Limonene	45.00
Glycerine	1.50
Water	39.50

Comments about this formula:

Part A: Ingredients 1-5, mix and heat to 70C.

Part B: Ingredients 6 and 7, warm to 80C and add to Part "A". Cool and package, before cooling.

Formulation HAN-015-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaners**Waterless Paste**

<u>Ingredients:</u>	<u>Weight%</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS (Ethylene Glycol Monostearate)	10.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	34.00

Comments about this formula:

Part A: Ingredients 1-4. Heat and mix to 160F.

Part B: Ingredients 5-7. Heat and mix to 160F. Combine "A" and "B".

Part C: Perfume. Cool "A" and "B", blend below 100F before adding.

Package immediately, forms a paste on cooling.

Formulation HAN-010-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Deodorized Kerosene	42.10
Calsuds CD-6	13.60
White Mineral Oil	3.30
Water	40.40
Kathon CG	0.50
Perfume	0.10

Comments about this formula:

Part A: Ingredients 1-3, combine and heat to 70C.

Part B: Ingredient 4, heat to 60C and add with mixing to Part "A"

Part C: Ingredients 5 and 6. Cool A/B, blend below 40C before adding. Forms a gel on standing.

Formulation HAN-011-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Deodorized Mineral Spirits	45.00
Glycerol	1.50
Water	42.00

Comments about this formula:

Part A: Mix and heat ingredients 1-4 to 80C.

Part B: Mix and heat ingredients 5 and 6 to 80C. Combine with Part "A". Forms a gel on cooling.

Formulation HAN-012-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner-Waterless Paste

<u>Ingredients:</u>	<u>%Wt</u>
Deodorized Kerosene	42.10
Calsuds CD-6	13.60
White Mineral Oil	3.30
Water	40.40
Kathon CG	0.50
Perfume	0.10

Comments About this Formula:

Part A: Ingredients 1-3, combine and heat to 70C.

Part B: Ingredient 4, heat to 60C and add with mixing to Part "A"

Part C: Ingredients 5 and 6. Cool A/B, blend below 40C before adding. Forms a gel on standing.

Formulation #HAN-011-01

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Deodorized Mineral Spirits	45.00
Glycerol	1.50
Water	42.00

Comments About this Formula:

Part A: Mix and heat ingredients 1-4 to 80C.

Part B: Mix and heat ingredients 5 and 6 to 80C. Combine with Part "A". Forms a gel on cooling.

Formulation #HAN-012-01

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Oleic Acid	1.60
Triethanolamine 85%	0.40
Caloxylate N-9	11.00
Calamide CWT	4.00
d-Limonene	34.00
Water, D.I.	49.00

Comments About this Formula:

1. Combine ingredients 1-5 and heat to 80C with mixing.

2. Slowly add water while maintaining temperature.

3. Forms a gel on cooling.

Formulation #HAN-013-01

SOURCE: Pilot Chemical Co.: Formulary

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Calamide CWT	10.50
Caloxylate N-9	6.00
Lauramine Oxide	0.50
d-Limonene	40.00
Glycerol	1.50
Water, D.I.	41.50

Comments About this Formula:

Part A: Combine and heat ingredients 1-4 to 70C.

Part B: Combine and heat ingredients 5&6 to 70C. Combine with Part "A". Package before cooling.

Formulation #HAN-014-01

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Caloxylate N-9	2.50
d-Limonene	45.00
Glycerine	1.50
Water	39.50

Comments About this Formula:

Part A: Ingredients 1-5, mix and heat to 70C.

Part B: Ingredients 6&7, warm to 80C and add to Part "A". Cool and package.

Formulation #HAN-015-01

Hand Cleaner-Liquid, Soap

<u>Ingredients:</u>	<u>Wt%</u>
Calfoam SLS-30	28.00
Caltaine C-35	5.00
Calamide C	3.00
EGMS	1.00
Propylene Glycol	1.00
PEG 46M	0.50
Kathon CG	0.05
Citric Acid	0.20

Comments About this Formula:

EGMS-Ethylene Glycol Monostearate

1. Ingredients 1-6 combined and heated to 70C to melt EGMS.

2. Kathon CG added after cooling before adjusting pH.

3. Sodium Chloride (1%) can be added to adjust the viscosity (increase).

Formulation #HAN-016-01

SOURCE: Pilot Chemical Co.: Formulary

Hot Pour Syndet Bar

This mild cleansing bar provides rich lather and soft skin as a result of Jordapon CI-60. The formula is designed to be manufactured using hot-fill equipment; no soapmaking lines are needed.

<u>Ingredient:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-60)	80.0
Stearyl Alcohol (CO-1895)	10.0
PEG-150 (Carbowax E-8000)	3.0
Triethanolamine, 99%	5.0
Demineralized Water	2.0

pH (5% solution): 6.3

Procedure:

With all ingredients in the vessel, heat to 70C. Begin propellor agitation when the batch becomes fluid. Maintain slow mixing until all solids are dissolved and the batch becomes a uniform, nonviscous, opaque fluid. Fill molds, allow to solidify.

Formula M102

Syndet Bar

Modification of an example in US Patent #4,707,288

<u>Ingredient:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-75)	76.5
Tallow/Coco Soap	16.7
Water	4.1
NaCl	0.3
TiO ₂	1.0
Fragrance	1.0
BHT	0.2
Na3HEDTA	0.2

Formula M103

SOURCE: PPG Industries, Inc.: Suggested Formulations

Liquid Soap

A mild, high-foaming formulation which is simple, yet offers lubricious lather and soft skin afterfeel thanks to the Jordapon CI-UP. The Mapeg EGMS provides a bright pearlescence to the system. It can be omitted if a clear product is desired.

Part:	Ingredient (Trade Name):	Wt%
A	Deionized Water	74.4
	Sodium Cocoyl Isethionate (Jordapon CI-UP)	3.0
	Ammonium Lauryl Sulfate (Stepanol AM)	13.0
	Glycol Stearate (Mapeg EGMS)	0.5
	Na ₄ EDTA	0.1
	Methyl Paraben	0.2
B	Cocamidopropyl Betaine (Mafo CAB)	6.0
	Cocamide DEA (Mazamide JT-128)	2.5
C	Fragrance	0.2
	Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 2500-3500 cps (with 0.6-0.9% NaCl)

Appearance: Creamy, Pearlescent Liquid

Procedure:

Mix and heat part A ingredients to 65C (150F). When uniform, add the Mafo CAB and the Mazamide JT-128. Cool the batch to 40C (100F), add fragrance and adjust pH. Adjust viscosity with sodium chloride.

SOURCE: PPG Industries, Inc.: Formulation N-201

Hand Cleaning Gel

	Wt%
Zusolat 1004	25.0
Oleic acid	4.0
Caustic soda (15%)	approx. 3.0
Shellsol D 40	18.0
q.s. to make 100%: water, perfume, preservative	

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 25/216

Lotion Hand Cleaner (With Abrasive)

	Wt%
Distilled Water	61.55
Bioterger AS-40	25.00
Methylparaben	0.15
Ritasynt IP	4.00
Pationic ISL	3.00
Ritapeg 150 DS	1.00
Walnut Shells (Coarse)	5.00
Kathon CG	0.10
TEA (50% Solution)	0.15
Perfume	0.05

pH: 6.0

Viscosity: 3400 cps

Foaming Results:	Foam	H2O
0.0 Minute	260	85
1.0 Minute	260	95
3.0 Minute	260	100

Stabilities:

4F: Walnuts drop to bottom after 1 cycle

40F: Walnuts drop to bottom after 4 weeks

70F: Walnuts drop to bottom overnight

110F: Separation overnight-all walnuts at bottom

Centifuge Results: Separates after 10 seconds @ 1600 rpm

Description: 1% Ritapeg 150 DS Without Ritavena 5

SOURCE: R.I.T.A. Corp.: Ritavena 5: Formulation 114-24

Mild Hand Cleanser

	Wt%
Mackanate LO-Special	83.0
Mackamide PKM	4.0
Mackernium 007	0.8
Mackstat DM	qs
Water, Fragrance qs to	100.0

Procedure:

1. Add Mackamide PKM to Mackanate LO-Special and heat to 70 degrees C.
2. Blend until homogeneous.
3. Dissolve Mackernium 007 in water and add to product.
4. Blend until completely homogeneous.
5. Cool to 50 degrees C. with mild agitation.
6. Add Mackstat DM and fragrance and cool with continuous agitation.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

Mild Pearlized Hand Cleanser

	<u>% By Weight</u>
Water	61.4
Sodium Chloride	0.3
Monateric 951A	20.8
Monamate LNT-40	12.5
Monamid 1089	1.0
Cerasynt IP	1.5
Phospholipid PTC	2.5

Procedure:

Add ingredients in order listed and warm with gentle agitation to 60C. Maintain 60C until the Cerasynt IP has dissolved. Cool - adjust pH with phosphoric acid. At pH 6.5, viscosity is about 2000 cps.

Formula F-128

Pearled Gel Facial Cleanser

	<u>% By Weight</u>
Water	52.5
Sodium Laureth (1) Sulfate (25% Active)	28.0
Monamate CPA-40	12.5
Monamid 1089	3.0
Cerasynt IP	1.5
Phospholipid PTC	2.5

Procedure:

Add ingredients in order listed and heat with gentle agitation to 70C while the Cerasynt IP dissolves. Cool and adjust pH level desired. At pH 5 to 6 the product is a pearled, barely flowable gel which is suitable for packing in tubes. Hand lather is copious, with a soft-creamy feel. When dry, the skin has a silky feel.

Formula F-156

Facial Cleanser

This high foaming formulation utilizes the mild cleansing and anti-irritation properties of Phospholipid PTC. Its substantivity to the skin and effective conditioning activity will help to minimize or alleviate dry skin conditions while leaving a silky talc-like afterfeel.

	<u>% By Weight</u>
Phospholipid PTC	2.5
Monateric CLV	12.5
Sodium Laureth (1) Sulfate (26%)	28.0
Water	57.0

SOURCE: Mona Industries, Inc.: Suggested Formulations

Opaque Liquid Soap

Natrosol 250HHR hydroxyethylcellulose effectively boosts the viscosity of this lower actives opaque shampoo base. At a surfactant solids level of only 7.3%, the addition of Natrosol yields a rich liquid soap with a viscosity of 4,000 cps (MPas) (Brookfield LVT at 30 rpm, 25C).

<u>Ingredients:</u>	<u>Weight%</u>
Water	75.88
Sodium C14-C16 olefin sulfonate, 40% active	7.50
Sodium lauroyl sarcosinate, 30% active	6.66
Cocamidopropyl betaine, 35% active	6.66
Glycol stearate	1.00
Natrosol 250HHR CS hydroxyethylcellulose	0.80
Propylene glycol	0.50
Glycerin	0.50
Tetrasodium EDTA	0.30
Stearalkonium chloride	0.10
Methyl paraben	0.10

Procedure:

1. Disperse the Natrosol in water with good agitation. Mix until fully dissolved. Moderate heating or an increase in solution pH to slightly alkaline will accelerate hydration.
 2. Disperse the methyl paraben in the propylene glycol. Add to the Natrosol solution. Mix until dissolved.
 3. While slowly stirring the water-soluble polymer solution, add the stearalkonium chloride, olefin sulfonate, and glycol stearate. Heat the mixture to 80C until all of the glycol stearate has melted and the solution has turned opaque.
 4. Add the remaining ingredients while cooling the solution slowly to room temperature.
 5. Add color and fragrance.
- Formula NO9-01W

Transparent Toilet Soap

Natrosol 250HR gives viscosity and pseudoplastic flow to this transparent hand soap.

<u>Ingredients:</u>	<u>Weight%</u>
Water	65.70
Sodium C14-C16 olefin sulfonate, 40% active	20.00
Sodium lauroyl sarcosinate, 30% active	10.00
Cocamide MEA	3.00
Natrosol 250HR CS	1.00
Disodium EDTA	0.20
Methyl paraben	0.10

Formula NO9-02W

SOURCE: Aqualon Division: Natrosol 250 Hydroxyethylcellulose

Soap Bar for Hard Water
(Formula 91-1106)

This soap bar incorporates a mild amphoteric surfactant to improve foaming in hard water situations. Additionally, the amphoteric reduces the harshness of the soap system in any washing environment. This bar is less drying than a pure soap based product.

% by Weight

Step A:

80/20 Bradpride Soap Base (Original Bradford Soap Works)	Q.S.
Bentone EW (Rheox)	10.0

Step B:

Water	7.5
Miranol C2M-SF 70%	5.0

Step C:

Fragrance, Dye(s), Preservative	Q.S.
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Blending Procedure:**Step A:**

Blend the dry components (Bradpride Soap Base, Bentone EW) in a powder mixer.

Step B:

Dissolve the Miranol C2M-SF 70% and any other water soluble components in the water with heating. Slowly and evenly add the aqueous solution to Step A to avoid wet spots.

Step C:

Finally, add the fragrance to Steps A and B. When uniformly mixed, mill and/or refine until the batch is homogeneous. Extrude and stamp into bars.

Typical Formulation Properties:

Appearance: Opaque Bar

pH (5% dispersion): 10.0-10.5

CTFA Identification:

Sodium Tallowate, Sodium Cocoate and/or Sodium Palm Kernalate, Hectorite, Water, Disodium Cocamphodipropionate.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Waterless Hand Cleaner

<u>Formula:</u>	<u>% by Weight</u>
A:	
Mineral Colloid BP (ECC America)	2.0
Water	36.0
B:	
Potassium Hydroxide	1.0
Water	5.0
C:	
Microwhite 100 (ECC America)	20.0
D:	
Oleic Acid	6.0
Deodorized Kerosene	25.0
Solulan 98	3.0
Yellow Protopet 2A Petrolatum (Witco)	2.0
Preservatives	q.s.

Procedure:

Slowly add the Mineral Colloid BP to the water while agitating at max. shear. Dissolve potassium hydroxide in water. Add B to A with medium shear. Add Microwhite 100 to A/B and mix until smooth and uniform. Heat A/B/C to 60C. Combine D and heat to 65C. Add D to A/B/C with slow mixing until cooled to 30C. Add preservatives and mix until smooth and uniform. Mineral Colloid, a refined smectite clay, effectively thickens and stabilizes the emulsion and suspends the abrasive.

Waterless Hand Cleaner with Abrasive

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum Pro	2.0
Water	39.4
B:	
Potassium Hydroxide	0.9
Water	2.7
C:	
Oleic Acid	9.0
Carnation Mineral Oil (Witco)	9.0
C11-12 Isoparaffin	27.0
D:	
Polyethylene	
Preservative	q.s.

Procedure:

Slowly add Veegum Pro to the water, agitating at maximum available shear. Mix until smooth. Add B with careful mixing and mix until uniform. Add C to A/B and mix until emulsion is smooth and uniform. Add D and mix until uniform. This is a medium viscosity cream.

SOURCE: Witco Corp.: Suggested Formulations

Section XI

Sun Care Products

After Sun Cream with Aloe Vera and Evening Primrose

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Miglyol 812 (Caprylic/Capric Triglyceride)	12.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Aloe Vera Lipo Quinone Extract (Aloe Barbadensis Extract)	2.00
Evening Primrose	2.00
B) Carbopol Gel 1%	15.00
Allantoin	0.20
Preservative	q.s.
d-Panthenol	3.00
Water	Up to 100.00
C) Fragrance	q.s.
Vitamin E	0.20

Preparation:**Carbopol Gel:**

Carbopol 980 (Carbomer)	1.0%
KOH 10%	4.0%
Water	up to 100.0%

After Sun Cream:

(A) is heated up to ca. 75 degrees C. (B) is stirred and brought to the same temperature and emulsified into (A).

(C) is added at about 35 degrees C.

Formulation 4.1D

W/O Sun Protection Lotion

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan Gel (Bis-Diglyceryl Polyacryladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	5.00
Dynacerein 660 (Oleyl Erucate)	18.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Abil WE 09 (Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	5.00
Eusolex 6300 (4-Methylbenzylidene Camphor)	3.00
B) Hombitec L5 (Titanium Dioxide)	3.00
Magnesium Sulfate	2.00
Preservative	q.s.
Water	up to 100.00

Preparation:

(A) is warmed up to ca. 75 degrees C. and stirred. (B) is brought to the same temperature and emulsified into (A) with an homogenizer. (C) is added at about 35 degrees C.

Formulation 4.2B

SOURCE: Huls America Inc.: Suggested Formulations

After Sun Lotion

The combination of Elhibin and Lactomide in this deep acting lotion regenerates the skin through the anti elastase effect and lipid barrier reconstruction. The formula is ideal for after sun applications.

<u>Item</u>	<u>Ingredients</u>	<u>Weight%</u>
1	A) Tween 60	5.00
2	Arlacel 60	3.00
3	Arlacel 165	2.00
4	Cetyl Alcohol	2.50
5	Isopropyl Myristate	8.00
6	B) Deionized Water	66.40
7	Phenonip	0.50
8	Imidazolidinyl Urea	0.30
9	Propylene Glycol	2.00
10	Elhibin	5.00
11	Lactomide	5.00
12	C) Fragrance: Timbaktu 0/186901	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. C 008.1/01.96

Light After Sun Fluid

Disbutin-BT, in this quick break emulsion, positively influences the regenerative capacity of the skin by instant dismutation of the oxygen free radicals preventing tissue damage.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Pemulen TR-1	0.25
2	Cetiol 868	8.00
3	Paraffin Oil	10.00
4	Vitamin E Acetate	0.50
5	B) Deionized Water	78.15
6	Glycerin	2.00
7	Phenonip	0.30
8	Imidazolidinyl Urea	0.20
9	C) Sodium Hydroxide 18% Solution qs. pH 6.0	
10	D) Dismutin-BT	0.30
11	Fragrance: Chiara 0/238927	0.30

Procedure:

Mix phase A) and homogenize for 2 minutes.

Under stirring add phase B) to phase A) and homogenize.

Neutralize with phase C and then add items 10 + 11, stir.

Application No. A 033.A/01.96

SOURCE: Pentapharm Ltd.: Suggested Formulations

After Sun Lotion

A smooth lotion that adds moisture to the skin after sunning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Stearic Acid	2.00
2. C12-15 Alkyl Benzoate	6.50
3. Cocoa Butter	1.00
4. Wheat Germ Oil	1.00
5. Tocopheryl Acetate	0.50
6. Rita GMS (Glyceryl Stearate)	2.00
7. Ritox 52 (PEG-40 Stearate)	1.00
8. Distilled/Deionized Water	68.30
9. Ritaloe 1X (Aloe Vera Gel)	10.00
10. Glycerine	3.00
11. Triethanolamine (99%)	1.00
12. Allantoin	0.50
13. Acritamer 941 (Carbomer)	0.20
14. Acrylates/Octylacrylamide Copolymer	1.00
15. Germaben IIE	1.00
16. Fragrance	q.s.
17. Defensine (Wheat Germ Extract)	1.00

Compounding Procedure:

Combine items 1-7 and heat to 80C. Combine items 8-12. Slowly add item 13 with rapid agitation. Heat to 80C. Slowly sift in item 14 and mix until dissolved. Add oil to water. Cool to 40C while mixing. Add items 15-17.

Ref. No. 122-6A

Sunscreen Cream

An elegant, smooth cream. The sunscreen has an estimated SPF of about 15 with a light feel and greaseless rub in. The formula is stabilized with Acritamer.

<u>Ingredients:</u>	<u>%W/W</u>
1. Acritamer 934 (Carbomer)	0.40
2. Distilled/Deionized Water	64.95
3. Propylene Glycol	3.00
4. Benzophenone-3	5.00
5. Octyl Methoxycinnamate	7.50
6. C12-15 Alkyl Benzonate	7.50
7. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00
8. Stearic Acid (T.P.)	2.00
9. Ritabate-80 (Polysorbate-80)	0.50
10. Rita CA (Cetyl Alcohol)	0.50
11. TEA (99%)	0.65
12. Rovisome C (ROVI Blend)	4.00
13. Glydant	q.s.
14. Perfume	q.s.

Compounding Procedure:

Disperse item 1 into item 2 and heat to 75-80C. Add item 3. Mix items 4-10 and heat to 75-80C. Combine phases with mixing. Adjust pH with item 11. Cool to 35-40C and add items 11-14.

Ref. No. 122-124

After Sun Milk

<u>Recipe:</u>		<u>Wt%</u>
A	Hostaphat KL 340 N	1.50
	Hostacerin DGS	4.00
	Mineral oil, high viscosity	3.00
	Isopropyl palmitate	3.00
	Cetiol SN	3.00
	Jojoba oil	3.00
	Walnut oil	3.00
	D-Panthenol	1.00
	B-Carotin	q.s.
	Antioxidant	q.s.
B	Carbopol 980	0.40
C	Allantoin	0.20
	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Glycerin	3.00
	Caustic soda solution (10%)	1.60
	Water	68.15
	Preservative	q.s.
D	Collagen KD	3.00
	Ethanol	1.50
	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
 - 2 Heat C to ca. 70C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 Add ca. 35C add the components of D to 3.
 - 5 Homogenize the emulsion.
- Formula A VI/3016

W/O-Sun Screen Milk

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin W0	2.00
	Arlacel 989	2.00
	Mineral oil, low viscosity	10.00
	Isopropyl palmitate	5.00
	Eutanol G	5.00
	Neo-Heliopan E 1000	4.00
	Neo-Heliopan BB	1.00
B	Allantoin	0.20
	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Sodium chloride	2.00
	Water	68.15
	Preservative	q.s.
C	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 80C.
 - 2 Stir solution B into 1 at room temperature and stir until cool.
 - 3 At ca. 35C add C to 2.
- Formula A VI/7300

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Insect Repellent Sunscreen

This lotion contains both Unirep U-18 which is a highly effective repellent against a variety of insects, and multiple sunscreen ingredients which provide an SPF of 20+.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	51.00
1	Methylparaben	0.25
1	Hampene Na3T	0.05
2	Carbopol 934 (2% aq. disp.)	12.25
3	Unirep U-18	12.75
3	Uvatone 2-6	7.75
3	Escalol 557	7.25
3	Neoheliopan BB	2.50
3	Lipovol MOS-70*	1.45
3	Lipomulse 165	1.45
3	Lipowax P	1.45
3	Propylparaben	0.10
4	Deionized Water	0.50
4	Triethanolamine, 99%	0.25
5	Deionized Water	0.75
5	Unicide U-13	0.25

*Patent #4,659,573

Procedure:

1. Heat Sequence #1 to 80C while mixing with overhead mixer at medium speed.
2. Heat Sequence #2 to 65C and add to Sequence #1 with overhead mixer at medium speed (holding temperature at 80C).
3. In another vessel mix and heat Sequence #3 to 80C or until completely melted and add to batch on overhead mixer at medium speed.
4. Premix Sequence #4 and add to batch switching to sweep blade at low speed. Lower temperature to 35C.
5. At 35C premix Sequence #5 and to batch. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 884

Light After Sun Fluid

Disbutin-BT, in this quick break emulsion, positively influences the capacity of regeneration of the skin by instant dissipation of the oxygen free radicals and therefore preventing tissue damage.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Pemulen TR1	0.25
2	Cetiol 868	8.00
3	Paraffin Oil	10.00
4	Vitamin-E-Acetate	0.50
5	B) Water demineralized	78.15
6	Glycerin	2.00
7	Phenonip	0.30
8	Imidazolidinyl urea	0.20
9	C) Sodium Hydroxide (18% solution in demin. water)	qs. pH=6
10	D) Disbutin-BT	0.30
11	Fragrance/Chiara 0/238927	0.30

Procedure:

Mix phase A) and homogenize for 2 minutes.

Under stirring add phase B) to phase A) and homogenize.

Neutralize with phase C) and then add items 10 + 11, stir.

Application No. A 033.A/01.96

After Sun Lotion

The combination of Elhibin and Lactomide in this deep acting lotion provides skin regeneration through the anti elastase effect and lipid barrier reconstruction. This makes this formula ideal for after sun application.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Tween 60	5.00
2	Arlacel 60	3.00
3	Arlacel 165	2.00
4	Cetyl alcohol	2.50
5	Isopropyl myristate	8.00
6	B) Water demineralized	66.40
7	Imidazolidinyl urea	0.30
8	Phenonip	0.50
9	Propylene glycol	2.00
10	Elhibin	5.00
11	Lactomide	5.00
12	C) Fragrance/Timbuktu 0/186901	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. C 008.1/01.96

SOURCE: Pentapharm Ltd.: Cosmetic Applications

Oil Free Skin BronzerIngredients:Weight%**Phase A:**

Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	3.00
Glyceryl Stearate (Tegin M)	2.00
Cetyl Alcohol (Tego Alkanol 16)	1.50
Polydecene	4.00
Cetearyl Octanoate (Tegosoft Liquid)	4.00
Caprylic/Capric Triglyceride (Tegosoft CT)	3.50

Phase B:

Glycerin	1.50
Butylene Glycol	2.00
Water	76.50
Preservatives	Q.S.

Phase C:

Titanium Dioxide	0.70
Iron Oxides	1.30

Phase D:

Fragrance	Q.S.
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Procedure:

1. Combine the ingredients of Phase A together. Heat to 65C and mix.
2. Combine the ingredients of Phase B together. Heat to 65C.
3. Add Phase A to B. Homogenize.
4. Add pigments. Continue to homogenize. When the pigments are fully dispersed, begin cooling.
5. Cool to 35-45C with sweep agitation.
6. Add Fragrance. Sweep mix.
7. Dispense.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

O/W-Sun Blocker

<u>Ingredients:</u>	<u>% by Weight</u>
A. Hostacerin DGL	1.00
Hostacerin DGS	4.00
Mineral oil, low viscosity	10.00
Isopropyl palmitate	5.00
Eusolex 6300	5.00
D-Panthenol	0.50
B. PNC 400	1.30
C. Eusolex 232	5.00
D. Tris Amino	2.21
Water	65.69
Preservative	q.s.
E. Fragrance	0.30

Procedure:

1. Melt A at ca. 70C, then add B.
2. Dissolve C in D at ca. 70C.
3. Stir 2 into 1 and stir until cool.
4. At ca. 35C add E to 3.
5. Homogenize the emulsion.

Formulation PF-0377E suggested by Hoechst AG (A VI/7204)

Aculyn 33 Sun Screen Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Montan OV 68	5.00
Lanol 37T	15.00
Dow Corning 200/350	5.00
Eusolex 6300	3.00
Solagum L	0.50
B. Water	63.00
Eusolex 232TS	3.00
Aculyn 33	3.00
Tris Amino Crystals	2.00
C. Preservative	q.s.
Perfume	q.s.

Physical Characteristics:

Appearance: Brilliant cream

pH: 7

Viscosity (RVT, #3/20): 15,000

Formulation PF-0386 suggested by Rohm & Haas Co. (PF-037)

SOURCE: Angus Chemical Co.; Product Formulary

O/W-Sun Screen Milk

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGL	1.00
	Hostacerin DGS	4.00
	Mineral oil, high viscosity	6.00
	Avocado oil	1.00
	Neo-Heliopan E 1000	9.00
	Neo-Heliopan BB	1.00
	Antioxidant	q.s.
B	PNC 400	0.30
C	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Water	77.05
	Preservative	q.s.
D	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
 - 2 Heat C to ca. 70C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 At ca. 35C add D to 3.
 - 5 Homogenize the emulsion.
- Formula A VI/7200

O/W-Sun Blocker

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGL	1.00
	Hostacerin DGS	4.00
	Mineral oil, low viscosity	10.00
	Isopropyl palmitate	5.00
	Eusolex 6300	5.00
	D-Panthenol	0.50
B	PNC 400	1.30
C	Eusolex 232	5.00
D	Tris(hydroxymethyl)-aminomethane	2.21
	Water	65.69
	Preservative	q.s.
E	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
 - 2 Dissolve C in D at ca. 70C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 At ca. 35C add E to 3.
 - 5 Homogenize the emulsion
- Formula A VI/7204

SOURCE: Henkel: Guide Recipes for the Cosmetic Industry

O/W Sun Screen with Organic and Inorganic Screens

<u>Ingredients:</u>	<u>Weight%</u>
A. Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	5.00
Cetyl alcohol	3.00
Eusolex 6300 (4-Methylbenzylidene Camphor)	3.00
Hombitec L 5 (Titanium Dioxide)	3.00
B. Luviskol K 30 (PVP)	0.50
Keltrol F (Xanthan)	0.50
Preservative	q.s.
Water, ad	100.00
C. Perfume	0.30

SPF ca. 10, water resistant

Preparation:

A is heated to 75-80C.

B is mixed and heated up to the same temperature.

B is emulsified into A.

At 30C C is added.

O/W Sun Protection Lotion (SPF 15)

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	3.00
Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	5.00
Eusolex 6300 (4-Methylbenzylidene Camphor)	3.00
Hombitec L5 (Titanium Dioxide)	3.00
B) Keltrol F (Xanthan Gum)	0.50
Preservative	q.s.
Water	Up To 100.00
C) Fragrance	q.s.

Preparation:

(A) is heated up to ca. 75 degrees C. (B) is stirred and brought to the same temperature and emulsified into (A).

(C) is added at about 35 degrees C.

Formulation 4.2C

SOURCE: Huls America Inc.: Suggested Formulations

Pre-Sun Moisture Accelerator

A glossy oil-in-water emulsion containing Vitamin E, vitamin A, Ritapan D and Defensine to protect against the drying and damaging effects of the sun.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritabate-80 (Polysorbate 80)	3.00
2. Rita IPP (Isopropyl Palmitate)	2.50
3. Rita GMS (Glyceryl Stearate)	2.50
4. Rita SA (Stearyl Alcohol)	2.00
5. Tocopheryl Linoleate	1.50
6. Sorbitan Stearate	1.50
7. Ritacetyl (Acetylated Lanolin)	1.50
8. Tocopheryl Acetate	1.00
9. Distilled/Deionized Water	79.65
10. Ritapan D (Panthenol)	1.00
11. Acritamer 934 (Carbomer)	0.30
12. Triethanolamine (99%)	0.60
13. Vitamin A Palmitate	1.20
14. Germaben IIE	0.75
15. Fragrance	q.s.
16. Defensine (Wheat Germ Extract)	1.00

Compounding Procedure:

Dissolve item 10 in item 9 and slowly add item 11 with rapid agitation. Heat to 75C. Heat items 1-8 to 75C. Add to water with agitation. Add item 12. Cool to 40C. Add items 13-16. Cool to room temperature while mixing.

Ref. No. 121-174

Oil in Water Sunscreen Cream

An oil in water emulsion that protects against UV-B rays.

<u>Ingredients:</u>	<u>%W/W</u>
1. Polyethylene	2.00
2. Stearic Acid	0.50
3. Ritalan (Lanolin Oil)	6.00
4. Rita IPP (Isopropyl Palmitate)	12.50
5. Sorbitan Stearate	1.30
6. Ritabate-60 (Polysorbate 60)	1.80
7. Octyl Methyloxycinnamate	6.50
8. Distilled/Deionized Water	62.00
9. Acritamer 940 (Carbomer)	0.20
10. Sorbitan (70%)	5.00
11. Germaben II	0.80
12. Triethanolamine (99%)	0.40
13. Defensine (Wheat Germ Extract)	1.00

Compounding Procedure:

Slowly sift item 9 into item 8 with rapid agitation. Add items 10 and 11 and heat to 85C. Combine items 1-7 and heat to 95C. Slowly add to water while mixing. Add item 12 with agitation until smooth and uniform. Cool to 40C and add item 13.

Ref. No. 121-172

Self Tanning DHA Cream
(W/O Emulsion)

Ingredients:**Weight%****Oil Phase A:**

Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	0.5
Caprylic/Capric Triglycerides (Tegosoft CT)	3.0
Octyl Stearate (Tegosoft OS)	5.0
Isopropyl Myristate (Tegosoft M)	4.0
Isopropyl Palmitate (Tegosoft P)	1.0
Cetyl Dimethicone (Abil Wax 9801)	1.0

Oil Phase B:

Cyclomethicone	4.0
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Water Phase:

Water	69.2
Propylene Glycol	2.0
Dihydroxyacetone	4.0
NaCl	0.8
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the Oil Phase together. Heat to melt and disperse the waxes. When dispersed, cool to 40C while mixing.
2. Add the Cyclomethicone. Mix.
3. Add the components of the Water Phase together. Heat to 40C.
4. Adjust pH of the Water Phase to 4.0-4.5, if necessary.
5. With lightnin' mixing, stream the Water Phase into the Oil Phase.
6. With sweep agitation, cool to 35C.
7. Add color, fragrance and preservatives.
8. Homogenize with a roto-stator homogenizer.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Skin Protecting Waterproof Sunscreen

A waterproof sunscreen that protects the skin by avoiding free radical formation with Defensine.

<u>Ingredients:</u>	<u>%W/W</u>
1. Octylmethoxycinnamate	7.50
2. Benzophenone-3	3.00
3. Rita IPP (Isopropyl Palmitate)	3.00
4. Rita CA (Cetyl Alcohol)	1.00
5. Stearic Acid	2.00
6. Ritox 52 (PEG-40 Stearate)	1.50
7. Ritasil 190 (Dimethicone Copolyol)	1.00
8. Dimethyl Stearamine	2.00
9. Acrylates/Octylacrylamide Copolymer	2.00
10. Distilled/Deionized Water	72.60
11. Acritamer 941 (Carbomer)	0.20
12. Triethanolamine (99%)	0.70
13. Germaben II-E	1.00
14. Defensine (Wheat Germ Extract)	2.50

Compounding Procedure:

Combine items 1-8 and heat to 70C. Slowly sift in item 9. Disperse item 11 in item 10 and heat to 70C. When completely dispersed add item 12. Add oil to water and mix. Allow to cool and add items 13 and 14.

Ref. No. 120-194B

Waterproof Sunscreen

A high SPF sunscreen lotion which is waterproof and contains Ritasil 190 for lubricity.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	74.90
2. Acritamer 941 (Carbomer 941)	0.20
3. Octylmethoxy Cinnamate	7.50
4. Benzophenone-3	3.00
5. Rita IPP (Isopropyl Palmitate)	3.00
6. Rita CA (Cetyl Alcohol)	1.00
7. Stearic Acid XXX	2.00
8. Ritox 52 (PEG-40 Stearate)	1.50
9. Ritasil 190 (Dimethicone Copolyol)	1.00
10. Dimethyl Stearamine	2.00
11. Acrylates/Octylacrylamide Copolymer	2.00
12. TEA	0.70
13. Germaben IIE	1.00

Compounding Procedure:

Disperse item 2 in item 1 and heat to 70C. When completely dispersed add item 12. Combine items 3-10 and heat to 70C. Slowly sift in item 11 and mix until uniform. Add to water phase and mix. Cool to 45C and add item 13.

Ref. No. 121-99

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Solar Protection Lotion

<u>Ingredient:</u>	<u>Wt%*</u>
A: Dimethicone	2.00
Hydroxyoctocosanyl Hydroxystearate	3.50
Potassium Cetyl Phosphate (Amphisol K)	0.50
Titanium Dioxide (and) C12-15 Alkyl Benzoate (Tioveil FIN)	12.50
Sorbitan Palmitate	3.50
Dilauryl Trimethylolpropane Siloxy Silicate	5.00
B: Deionized Water	63.10
Veegum Ultra, Magnesium Aluminum Silicate	0.80
Rhodigel, Xanthan Gum	0.20
Propylene Glycol	5.00
Polysorbate 20	3.50
Sodium Lactate	0.30
Lactic Acid to pH 5.5	q.s.
C: Methylchloroisothiazolinone (and) Methylisothiaz- olinone (Kathon CG)	0.10

Procedure:

Weigh the water into a suitable vessel and heat to 75C. Mix with a homogenizer operating at 5000 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel, add them to the water and mix for 20 minutes. Add the remaining Part B ingredients and mix each for 3 minutes. Maintain temperature at 75C. Weigh the Part A ingredients into a separate vessel, mix and heat to 75C. Add Part A to Part B. Mix for 10 minutes at 5000 rpm. Transfer the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing, at 40C, add Part C. Package at ambient temperature. Note: Avoid pH of 6.5-7.5 as this may affect SPF value.

Formula from A&E Connock, Ltd.

TiO₂ Lotion

<u>Ingredient:</u>	<u>Wt%*</u>
A: Propylene Glycol Isoceteth-3 Acetate (Hetester PHA)	10.00
Octyldodecyl Neopentanoate (Elefac I-250)	10.00
Titanium Dioxide (and) Bismuth Oxychloride (Titanium Dioxide 110)	10.00
B: Deionized Water	68.90
Veegum, Magnesium Aluminum Silicate	0.70
Rhodigel, Xanthan Gum	0.30
C: Methylchloroisothiazolinone (and) Methylisothiazol- inone	0.10

Procedure:

Weigh the water into a suitable vessel and mix with a propeller mixer at 1800 rpm. Dry blend the Veegum and Rhodigel and add them to the water. Mix for 60 minutes. In a separate vessel, mix the Part A ingredients until the Titanium Dioxide is uniformly dispersed. Add Part A to Part B and mix until uniform. Add Part C, mix until uniform and package.

Formula from Bernel Chemical Co., Inc.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulations

Sprayable Sunscreen

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	79.20
Glycerin	3.00
AMP-95	0.12

Part B:	
Octyl Methoxy Cinnamate	7.00
Octyl Salicylate	3.00
Oxybenzone	2.00
C12-15 Alcohols Benzoate	4.00
Oleth-10	0.08
Sorbitan Oleate	0.05
Dimethicone, 100 cs.	0.50
Pemulen TR-2	0.15

Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.80
Disodium EDTA	0.10

Procedure:

Combine A ingredients in a vessel which will contain the entire formulation. In a separate vessel, combine all B ingredients except dimethicone and Pemulen. Heat to 45-50C to hasten dissolution of oxybenzone. Discontinue heating and add Pemulen. Mix to obtain a smooth dispersion. Add dimethicone. Add B to A with rapid agitation. Continue mixing to obtain a smooth emulsion. Add C. Disodium EDTA should be added incrementally such that a Brookfield viscosity of 500-1000 cps is achieved (model RVT @ 20 RPM, #2 spindle).

Formulation PF-0320 suggested by B.F. Goodrich

Waterproof Aerosol Sunscreen (SPF 10)

<u>Ingredients:</u>	<u>% by Weight</u>
SD Alcohol 40	43.65
AMP-95	0.35
Dermacryl	2.00
Deionized water	9.00
Octyl Methoxycinnamate	7.50
Menthyl Anthanilate	4.00
Cyclomethicone	3.00
Tocopheryl Acetate	0.50
Dimethyl Ether	30.00

Procedure:

Combine SD Alcohol 40 with AMP-95. With good agitation, slowly sift in Dermacryl-79. Mix until complete. Add rest except Dimethyl Ether. Continue mixing until complete. Filter, fill and charge with dimethyl ether.

Formulation PF-0318 suggested by National Starch & Chemical (7172-100)

SOURCE: Angus Chemical Co.: Product Formulary

Sunblock Lotion

In this formula, Veegum is used with Rhodigel Xanthan Gum and a Xanthan Gum-based dispersible emulsifier to stabilize the emulsion and adjust emulsion viscosity. This cold process lotion has a light feel with quick, greaseless rub-in. The sunscreen should offer considerable protection against sunlight-induced skin problems. The Ritachol and Finsolv are included for emollience and rapid skin absorption on rub-in.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.60
Rhodigel, Xanthan Gum	0.15
Deionized Water	65.45
Nonfat Dry Milk (and) Xanthan Gum (and) Glyceryl Stearate (and) Hydrogenated Vegetable Glycerides Phosphate	0.80
Propylene Glycol	3.00
B: C12-15 Alkyl Benzoate (Finsolv TN)	8.00
Benzophenone-3 (Escalol 567)	5.00
Octyl Methoxycinnamate (Parsol MCX)	7.50
Mineral Oil (and) Lanolin Alcohol (Ritachol)	4.00
Polysorbate 80	0.50
C: Zinc Oxide	5.00
D: Preservative	q.s.

Add the Veegum/Rhodigel dry blend to the water slowly, agitating at maximum available shear until smooth. Add the remaining Part A ingredients in the order shown, mixing after each until smooth and uniform. Mix the Part B ingredients until the Benzophenone-3 dissolves. Add Part B to Part A and mix until smooth. Add Part C and then Part D and mix each until smooth and uniform.

Sunblock with TiO₂

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Diisopropyl Dimer Dilinoleate (Schercemol DID)	10.00
Cetyl Octanoate (Schercemol CO)	1.50
Sorbitan Stearate	3.00
Glyceryl Isostearate	1.00
Dimethicone Copolyol	1.00
Titanium Dioxide (and) Caprylic/Capric Triglyceride	12.50
Cetearyl Alcohol (and) Ceteareth-20	1.00
Phenyl Trimethicone	1.50
B: Deionized Water	62.20
Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.30
Propylene Glycol	2.00
Polysorbate 60	3.00
C: Preservative	q.s.

Weigh the water into a suitable vessel and heat to 70C. Mix the water with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum and Rhodigel, add them to the water and continue mixing for 20 minutes. Add the remaining Part B ingredients, mixing each for 3 minutes. Weigh the Part A ingredients into another vessel, mix and heat to 70C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer, adjust the speed to create a small vortex and begin cooling. At 40C add Part C and continue cooling. Package at 35C.

SOURCE: R.T.Vanderbilt Co., Inc.: Formula #367 & Scher Chemicals

Sunless Tanning Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Propyl Paraben	0.01
Glycerin	3.5
Brij 78	0.4
Neobee M-5 Cosmetic	10.0
Kessco GMS	3.0
Kessco Cetyl Alcohol	2.0
Wecobee S	2.5
Silicone 200 (350 cps)	1.0
Glydant	0.25
Dihydroxyacetone	3.5
Citric Acid (50%)	Q.S.

Mixing Procedure:

Prepare water phase by adding water, Methyl Paraben, and Glycerin. Mix well. Heat to 160F. Prepare oil phase by adding Brij 78, Neobee M-5 Cosmetic, Kessco GMS, Kessco Cetyl Alcohol, Propyl Paraben, and Wecobee S. Heat to 165F. Add oil phase to the water phase. Increase agitation. Mix at 165F for 20-25 minutes. Start cooling to room temperature. At 110F, add Glydant. Premix Dihydroxyacetone with water. Add at 95F. Mix well. Adjust pH (to 5.5-6.0) with Citric Acid.

Tanning Accelerator

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Propyl Paraben	0.01
Glycerin	3.5
Brij 78	0.4
Neobee M-5 Cosmetic	10.0
Kessco GMS	3.0
Kessco Cetyl Alcohol	2.0
Wecobee S	2.5
Silicone DC 200 (350 cps)	1.0
Glydant	0.25
Dihydroxyacetone	3.5
Citric Acid (50%)	Q.S.

Mixing Procedure:

Prepare water phase by adding water, Methyl Paraben, and Glycerin. Mix well. Heat to 160F. Prepare oil phase by adding Brij 78, Neobee M-5 Cosmetic, Propyl Paraben, Kessco GMS, Kessco Cetyl Alcohol, and Wecobee S. Heat to 165F. Add oil phase to the water phase. Increase agitation. Mix at 165F for 20-25 minutes. Start cooling to room temperature. At 110F, add Glydant. Premix Dihydroxyacetone with water. Add at 95F. Mix well. Adjust pH (to 5.5-6.0) with Citric Acid.

SOURCE: Stepan Co.: Suggested Formulations

Sunscreen Cream
SPF 9

<u>Phase #:</u>		<u>Wt%</u>
1	Deionized water	29.53
1	2% Carbopol 980 aqueous solution	15.00
1	Propylene glycol	5.00
1	Methylparaben	0.20
1	Propylparaben	0.10
1	Triethanolamine 99%	0.45
2	Deionized water	10.00
2	Tetrasodium EDTA	0.02
2	Eusolex 232 (2-phenylbenzimidazole-5-sulfonic acid)	4.00
2	Triethanolamine 99%	4.20
3	Arlacel 165 (glyceryl stearate (and) PEG-100 stearate)	1.00
3	Dow Corning 344 Fluid (cyclomethicone)	5.00
3	Emersol 132 Lily Stearic Acid, NF	5.00
3	Prisorine 2039 (isostearyl isostearate)	10.00
3	Finsolv TN (C12-15 alkyl benzoate)	10.50

Procedure:

Add Phase 1 ingredients to main vessel under impeller agitation. Heat Phase 1 to 75-80C. Combine Phase 2 ingredients; mix to clarity while heating to 70C. Slowly add Phase 2 to Phase 1. Mix combined phases at 75-80C. Combine Phase 3 ingredients; heat and mix to 85C. Slowly add Phase 3 to batch; mix for 15 minutes at 85C. Remove from heat; switch to paddle mixing and cool to room temperature.

SOURCE: Rona/EM Industries, Inc.: Formulation EUS2-47-5

Sunscreen Cream
SPF 12+

<u>Phase #:</u>		<u>Wt%</u>
1	Deionized water	44.23
1	2% Carbopol 980 aqueous solution	15.00
1	Propylene glycol	5.00
1	Methylparaben	0.20
1	Propylparaben	0.10
1	Triethanolamine 99%	0.45
1	Tetrasodium EDTA	0.02
2	Octyl methoxycinnamate	5.00
2	Eusolex 4360	3.00
2	Arlacel 165 (glyceryl stearate (and) PEG-100 stearate)	1.00
2	Dow Corning 344 Fluid (cyclomethicone)	5.00
2	Glyceryl stearate	4.00
2	Emersol 132 Lily Stearic Acid, NF	2.50
2	Prisorine 2039 (isostearyl isostearate)	10.00
2	Castorwax (hydrogenated castor oil)	2.00
2	Finsolv TN (C12-15 alkyl benzoate)	2.50

Procedure:

Add Phase 1 ingredients to main vessel under impeller agitation. Heat Phase 1 to 75-80C. Combine Phase 2 ingredients; heat and mix to 85C. Slowly add Phase 2 to batch; mix for 15 minutes at 85C. Remove from heat; switch to paddle mixing and cool to room temperature.

Formulation EUS2-93-2

After Sun Lotion

<u>Phase #:</u>		<u>Wt%</u>
1	Deionized water	ad 100.00
1	Timiron Starlight Gold	4.00
1	D-Panthenol USP	1.00
1	Propylene glycol	3.00
1	Preservatives	qs
2	Cremophor A6 (Ceteareth-6 (and) Stearyl Alcohol)	2.00
2	Cremophor A25 (Ceteareth-25)	2.00
2	Luvitol EHO (Cetearyl Octanoate)	7.00
2	Paraffin Oil	8.00
2	Cetyl Alcohol	1.00
2	Glyceryl Monostearate	6.00
2	Dow Corning 200 Fluid; 100 cs	0.20
2	(+)- α -Bisabolol	0.20
3	Fragrance	qs

Procedure:

Combine phase 2, heat to 70-75C with stirring until homogeneous. Combine phase 1, heat to 70-75C, add to phase 2 with stirring. Stop heating at 60C, begin homogenizer mixing. Add phase 3 fragrance at 40C with stirring. Cool to room temperature with stirring.

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Sunscreen Cream with UVA Protection (Est. SPF=25)

This formula contains the UVA absorbers Menthyl Anthranilate and Zinc Oxide for a stable, elegant, high-SPF composition with enhanced UVA protection.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Octyl Methoxycinnimate (Neo Heliopan AV)	7.50
Octyl Salicylate (Neo Heliopan OS)	5.00
Menthyl Anthranilate (Neo Heliopan MA)	5.00
Isocetyl Alcohol	2.00
Cetearyl Alcohol (and) Ceteareth-20	2.00
Glyceryl Stearate	1.50
PEG-40 Stearate	1.00
Cetyl Alcohol	0.75
Tocopheryl Acetate	0.25
Zinc Oxide (Zinc Oxide Neutral)	6.00
Dimethicone	1.00
B: Deionized Water	64.70
Veegum Ultra, Magnesium Aluminum Silicate	0.50
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	2.00
Disodium EDTA	0.20
C: Methylchloroisothiazolinone (and) Methylisothiazol- inone (Kathon CG)	0.10

Procedure:

Weigh the water into a suitable vessel and heat to 75-80C. Mix the water with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel, add them to the water and continue mixing for 15 minutes. Add the remaining Part B ingredients in order, mixing each for 3 minutes. Weigh the Part A ingredients into another vessel. Mix and heat to 75-80C. Add Part A to Part B and mix for 10 minutes at 75-80C. Move the batch to a propeller mixer, adjust the speed to produce a small vortex and start cooling. At 40C add Part C and continue cooling. Package at 35C.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulation from Haarman & Reimer Corp.

Sunscreen Emulsion with Titanium Dioxide

This base is an ideal starting point for sunscreen lotions. It is a very stable formulation for any type of pigmented product.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	61.98
Veegum, Magnesium Aluminum Silicate	0.50
Cellulose Gum	0.15
Allantoin	0.05
Methylparaben	0.20
Titanium Dioxide (and) Alumina (and) Glycerin (and) Silica (UV-Titan M212)	8.00
B: Lecithin	1.00
Lanolin Alcohol	1.50
Glyceryl Stearate	0.80
Isopropyl Palmitate	4.00
Stearic Acid	0.50
Caprylic/Capric Triglycerides	4.00
Isoeicosane (Permethy1 102A)	7.50
Polyisobutene (Permethy1 104A)	2.50
Isostearic Acid	2.40
Propylparaben	0.10
C: Imidazolidinyl Urea	0.20
D: Triethanolamine, 99%	1.62
Polyglycerylmethacrylate	3.00

Procedure:

Weigh the Part A water into a suitable vessel and mix with a homogenizer operating at 5000 rpm. Dry blend the Veegum and cellulose gum, add the mixture to the water and continue mixing for 30 minutes at 5000 rpm, while heating the batch to 70-72C. Add the remaining Part A ingredients in order, mixing each until uniformly dispersed. Mix the Part B ingredients in another vessel and heat to 75C. Add Part B to Part A and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing. At 60C, add Part C. At 40C, add the Part D ingredients in order. Package at ambient temperature.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulation from Presperse, Inc.

Sunscreen Gel

Cera Bellina (Pg-3 Beeswax) produces a non-granular, low penetration and high stability gel. This formula utilizes an array of oils and actives producing a product with a non-greasy skin feel, penetrates the skin quickly and has an SPF of 4 to 6.

Oil Phase:

	<u>Wt%</u>
Sweet Almond Oil (Croda)	29.0
Cera Bellina (Pg-3 Beeswax, Koster Keunen)	15.3
Isopropyl Palmitate (Unichema)	15.0
Jojoba Oil (Jojoba Growers)	13.0
Sesame Oil (Polyester)	9.0
Avocado Oil (Arista)	9.0
Cetyl Stearyl Alcohol (Proctor & Gamble)	4.0
Escalol 507 (Van Dyk)	4.0
Ozokerite 160/164 (Koster Keunen)	1.0
Carnauba #1 Yellow (Koster Keunen)	0.5
Vitamin A Palmitate (BASF)	0.1
Vitamin E Concentrate (BASF)	0.1

Procedure:

Weigh and add each component of the oil phase to a vessel. Heat, not exceeding 75C, and mix until homogeneous. Reduce temperature to 60C and pour into container.

Adaptation of Formula and Its Influence on the Product:

By replacing the jojoba, sesame and avocado oils with light mineral oil (28.8%) and increasing the Cera Bellina concentration (17.5%), one can produce the same product as described above. The formulator has the ability to substitute their preferred oils with only slight concentration changes of Cera Bellina to produce products of the same consistency. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

Lip Care Balm

This very economical product offers good barrier properties and has an SPF of 4-6. Neo Heliopan (H & R) is a solution of 2-Ethylhexyl-p-methoxycinnamate, a UV-B absorber which offers protection over a wide spectra range and is considered safe.

	<u>Wt%</u>
Petrolatum White USP (Witco)	44.0
Stearyl Alcohol (Proctor & Gamble)	17.5
NF White Beeswax (Koster Keunen)	9.5
Ozokerite 160/164 (Koster Keunen)	19.5
Deodorized Orange Wax (Koster Keunen)	2.5
Isopropyl Palmitate (Unichema)	1.0
Paraffin 160/165 (Koster Keunen)	3.0
Neo Heliopan AV (H&R)	2.0
Titanium Dioxide (Whittaker C&D)	1.0

Procedure:

Add all components, heat till 75C and use low shear to disperse the TiO₂. Once the mixture is homogeneous, cool and pour into molds.

Adaptation of Formula and Its Influence on the Product:

It is easy to incorporate actives such as vitamins, other oils and additional sunscreens to increase the SPF. Fragrance and colors are also easily added. This formula is very stable and slight substitutions in ingredients can be tolerated.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Sunscreen Lotion**Formulating Design and Advantages:**

This formula demonstrates the rheological and stabilizing properties of Cera Bellina. Incorporated into this formula is the sunscreen Escalol (Octyl Dimethyl PABA; Van Dyk) giving this formula an approximate SPF value of 4 to 6. The product has high gloss and excellent skin feel. The rheological properties of Cera Bellina allow for this product to be packaged in convenient tubes or squeeze bottles.

Oil Phase:	<u>Wt%</u>
Escalol 507 (Van Dyk)	5.63
Amerchol L 101 (Amerchol)	4.70
Cera Bellina (Pg-3 Beeswax; Koster Keunen)	3.80
Glycerol Monostearate (Henkel)	2.77
Light Mineral Oil (Witco)	2.83
Isostearic Acid (Unichema)	1.00

Water Phase:	
Water (Distilled)	71.66
1,3-Butylene Glycol (Hoechst)	2.90
Glycerine (Unichema)	2.83
Triethanolamine (Dow)	0.80
Germaben II (Sutton)	0.80
Carboxymethyl Cellulose (Hercules)	0.28

Procedure:

Heat the water phase to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase at 75F. Slowly add the oil phase to the water phase under vigorous agitation. Allow to cool to 35C and pour into jars.

Adaptation of Formula and Its Influence on the Product:

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Sunscreen Milk W/O

In this w/o sunscreen milk, Lipogard acts as a free radical scavenger and protects skin lipids from peroxidation. Pentavitin provides the skin with moisture.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Arlacel 989	6.00
2	Arlacel 481	1.50
3	Paraffin Oil	14.00
4	Isopropyl Palmitate	6.00
5	Parsol MCX	3.00
6	Parsol 1789	3.00
7	Lipogard	3.00
8	B) Deionized Water	57.70
9	Phenonip	0.50
10	Pentavitin	5.00
11	C) Fragrance: Solara 0/227632	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.
 Heat the ingredients of water phase B) to 75C.
 Under stirring add phase B) to phase A), cool to 50C,
 homogenize and cool to 30C.
 Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. G 006.A/03.96

After Sun Lotion

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 960K, Flakes (Glyceryl Stearate SE)	4.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	7.00
Cetyl Alcohol	1.00
Hostaphat KL 340 N (Dilaureth-4-Phosphate)	5.00
B) Preservative	q.s.
Keltrol F Gel 2% (Xanthan Gum)	30.00
Citric Acid	0.30
Water	Up to 100.00
C) Fragrance	q.s.
Vitamin E	0.20

Preparation:

(A) is heated up to ca. 75 degrees C. (B) is stirred and brought to the same temperature and emulsified into (A). (C) is added at about 35 degrees C.

SOURCE: Huls America Inc.: Formulation 4.2D

Sunscreen Milk W/O

In this w/o sunscreen milk, Lipogard acts as free radical scavenger and protects the skin lipids from peroxidation. Pentavitin provides the skin with moisture.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Arlace1 989	6.00
2	Arlace1 481	1.50
3	Paraffin Oil	14.00
4	Isopropyl palmitate	6.00
5	Parsol MCX	3.00
6	Parsol 1789	3.00
7	Lipogard	3.00
8	B) Water demineralized	57.70
9	Phenonip	0.50
10	Pentavitin	5.00
11	C) Fragrance/0/227632 Solara	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. G 006.A/03.96

Sunscreen Spray

<u>No.:</u>	<u>Phase/Ingredient:</u>	<u>% by Weight</u>
1	A) Cyclomethicone DC 345	55.60
2	A) *Polysynlane	10.00
3	A) *Grapeseed Oil	2.00
4	A) *Sunflower Seed Oil	2.50
5	A) Vitamin E Acetate	0.25
6	A) Tenox 6	0.15
7	A) Fragrance Novarome NC-48	0.50
8	B) Ceraphyl 230	5.00
9	B) Octyl Methoxycinnamate	7.50
10	B) Oxybenzone	4.00
11	B) Octyl Salicylate	5.00
12	B) Transcutol	7.50

*Polyester Corp. Product

Manufacturing Instructions:

Combine phase A. Combine phase B. Add phase B to phase A. Package.

An easy to apply spray that leaves the skin protected from both UVA and UVB radiation. It spreads quickly and is completely non-greasy. The anticipated SPF is 15. The formulation exhibits excellent solubilization of the oxybenzone, which is often seen to crystallize out.

SOURCE: Polyester Corp.: Suggested Formulation

Sunscreen Moisturizing Cream**Formulating Design and Advantages:**

This formula demonstrates the rheological and stabilizing properties of Cera Bellina. Incorporated into this formula is the sunscreen Escalol (Octyl Dimethyl PABA; Van Dyk) giving this formula an approximate SPF value of 4 to 6. The cream has high gloss and excellent skin feel.

Oil Phase:

	<u>Wt%</u>
Cera Bellina (PG-3 Beeswax, Koster Keunen)	6.0
Minosil (Pride Solvents)	6.0
Escalol 507 (Van Dyk)	5.1
Amerchol L101 (Amerchol)	5.0
Castor Oil (Caschem)	3.0
Glycerol Monostearate (Henkel)	2.0
Isopropyl Palmitate (Unichema)	2.0
Ozokerite 160/164 (Koster Keunen)	1.0
Silicone Fluid 245 (Dow Corning)	1.0
Propyl Paraben (Sutton)	0.2

Water Phase:

Water (Distilled)	65.3
Butylene Glycol (Hoechst)	2.9
Sodium Borate (Borax)	0.2
Methyl Paraben (Sutton)	0.3

Procedure:

Heat the water phase to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase until homogeneous and a temperature of 75C is maintained. Slowly add the oil phase to the water phase under vigorous stirring. Allow to cool to 35C and pour into jars.

Adaptation of Formula and its Influence on the Product:

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Sunscreen Stick

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Weight</u>
A	Beeswax	15.00
A	Myritol 318	15.00
A	Oils of Aloha Macadamia Nut Oil	10.00
A	Cetearyl Alcohol	8.00
A	Carnauba Wax	1.50
A	Petrolatum	50.50
A	Octyl p-Methoxycinnamate	5.00
A	Vitamin E	0.25

Manufacturing Procedure:

Combine ingredients at 75C. Pour into molds.

SPF would be 4 to 6. Sunscreen is the Octyl p-Methoxycinnamate.

Beeswax, carnauba and cetearyl alcohol form the stick.

The Macadamia Nut Oil helps reduce Petrolatum's tacky feel.

Vitamin E serves as an anti-oxidant.

SOURCE: Oils of Aloha: Suggested Formulation

Aloe After Sun Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	74.00
Glycerin	3.0
Triethanolamine	1.0
Germaben II	0.5
B:	
Stearic Acid	8.0
Carnation Mineral Oil (Witco)	5.0
Finesolv TN	2.0
Cetyl Alcohol	1.0
Silicone Fluid 225	0.5
Cocoa Butter	2.0
Isopropyl Lanolate	2.0
C:	
Aloe-Con WG-40 (Florida Food Products)	1.0
D:	
Fragrance	q.s.

Procedure:

Heat phases to 80C. At 80C add oil phase to water phase.

Mix and cool to 55C. Add aloe concentrate to batch at 55C.

Add fragrance at 45C.

SOURCE: Witco Corp.: Suggested Formulation

Sun Tan Oil-A

<u>Formula:</u>	<u>% by Weight</u>
SF1204	45
SS4267	5
Blandol Mineral Oil (Witco)	45
Escalol 507	5
Preservative	q.s.
Perfume	q.s.

Sun Tan Oil-B

<u>Formula:</u>	<u>% by Weight</u>
SF1204	40
SS4267	5
Blandol Mineral Oil (Witco)	40
Fluilan	5
Sunflower Oil (Lipo)	5
Escalol 507	5
Preservative	q.s.
Perfume	q.s.

Sun Tan Oil-C

<u>Formula:</u>	<u>% by Weight</u>
SF1204	40
SS4267	5
Blandol Mineral Oil (Witco)	35
Fluilan	5
Almond Oil	5
Sunflower Oil	5
Escalol 507	5
Preservative	q.s.
Perfume	q.s.

Procedure:

Blend all ingredients except SS4267. Add SS4267 and stir to a clear solution.

SOURCE: Witco Corp.: Suggested Formulations

Wash-Off Resistant Sunscreen Lotion with Crodafos CES

The incorporation of Crodafos CES in the formula enables this sunscreen lotion to attain higher static SPF and sustain a more improved waterproof SPF. These improved SPF's are due to the ability of Crodafos CES to enhance oil deposition, which gives the higher initial SPF, and to its substantivity as a phosphate-based emulsifying system, which results in better resistance to wash-off to give the higher sustained waterproof SPF.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol C-70 (Cetyl Alcohol)	0.5
Volpo S-2 (Steareth-2)	0.5
Volpo S-10 (Steareth-10)	1.0
Petrolatum	4.5
Mineral Oil (70ssu)	8.0
Part B:	
Deionized water	70.7
TEA 99%	0.3
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0
Octyl Methoxycinnamate	7.5

pH=5.0+-0.5

Viscosity=(RVT Spindle #5, 10rpm, 25C)=13,000cps+-10%

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 40C. Add ingredients of Part C with mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE; Croda Inc.: Formulation SC-258

Water-In-Oil Sunscreen
SPF 26

Ingredients:**Weight%****Phase A:**

Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	
Isostearate (and) Hexyl Laurate (Abil WE-09)	5.00
Cetyl Dimethicone (Abil Wax 9840)	0.25
Octyl Palmitate (Tegosoft OP)	1.25
Octyl Stearate (Tegosoft OS)	5.35
Mineral Oil	1.75
Beeswax	1.20
Hydrogenated Castor Oil	0.80

Phase B:

Octyl Methoxycinnamate	5.00
Titanium Dioxide	5.00
Cyclomethicone	4.40

Phase C:

Water	69.20
Sodium Chloride	0.80
Preservatives	Q.S.

Procedure:

1. Heat Phase A to 85C to melt and disperse waxes.
2. Cool Phase A to 50C. Add B to A slowly with a low energy mixer.
3. Roller mill to reduce particle size of Titanium Dioxide.
4. Cool to 50C.
5. Heat Phase C to 50C. Add Phase C to A/B slowly with low energy mixing. Maintain a smooth milky appearance at all times while mixing.
6. Cool to 35C and homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Waterproof SPF 30 Sunscreen

This sunscreen formula containing Croda's new conditioning and emulsifying system Crodafos CES was clinically tested by AMA Laboratories for its Sun Protection Factor (SPF) and shown to have a static SPF of 31.66 and a Waterproof SPF of 30.31. The ability of Crodafos CES to increase oil deposition and improve wash-off resistance appears to enhance the formula's sunscreen performance and contribute to the high SPF.

<u>Ingredients:</u>	<u>Weight%</u>
Deionized Water	63.23
Carbopol 981	0.13
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.50
Benzophenone-3	5.00
Octyl Methoxycinnamate	7.50
Octyl Salicylate	5.00
Menthyl Anthranilate	5.00
Crodamol OS (Octyl Stearate)	5.00
NaOH-10% Soln.	1.54
BHT	0.10
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
pH=5.8+-0.5	
Viscosity=17,000 cps+-10% (RVT Spindle TB, 10 rpm @ 25C).	
Static SPF=31.66	Waterproof SPF=30.31

Procedure:

Dust Carbopol into the deionized water while stirring rapidly. Mix well for good hydration. Begin heating to 75-80C. Add Crodafos CES and mix well until all is melted and homogeneous. Add Benzophenone-3, Octyl Methoxycinnamate, Octyl Salicylate, Menthyl Anthranilate and Crodamol OS individually and with good mixing. Continue mixing at 75-80C, until homogeneous. Begin slow cooling and at 60C add NaOH solution. Cool to 45C and add BHT and preservative.

N.A.T.C Approved

SOURCE: Croda Inc.: Formulation SC-260

Waterproof Sunscreen Lotion (SPF 15)
Using Pemulen TR-1 and Carbopol Ultrez 10

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized Water	82.60
Methocel E4M	0.10
Nuosept C	0.20
Disodium EDTA	0.05
AMP-95	0.25
B. Neo Heliopan, Type AV	7.00
Neo Heliopan, Type OS	3.00
Uvinul M-40	2.00
Finsolv TN	4.00
Pemulen TR-1	0.25
Carbopol Ultrez 10	0.20
C. Crovol A-40	0.20
Fragrance #99189 "Twister"	0.15

Procedure:

1. Combine Part A ingredients. Mix until homogeneous.
 2. Combine first four Part B ingredients in a separate vessel. Heat mixture until oxybenzone has dissolved.
 3. Cool Part B to 45C. Disperse last two Part B ingredients in Part B vessel. Mix until polymers are dispersed well.
 4. With moderate agitation, add Part B to Part A. Mix for 20 minutes or until a smooth, non-grainy dispersion is apparent. Add Part C and mix vigorously until a smooth, lustrous product is obtained.
- Formulation PF-0375 suggested by B.F.Goodrich (P0052)

Sunscreen Cream

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	78.16
Rheolate 5000	0.30
Propylene carbonate	2.50
B. Panalene	8.00
Silicone 7207	1.00
Promulgen D	0.50
Ceraphyl 494	2.00
C. AMP-95	0.24
D. Euxyl K-400	0.30
Finsolv TN	2.00
Escalol 507	5.00

Procedure:

Sift the polymer in the water, mix for 20 minutes and add the propylene carbonate. Heat to 80C. Combine B and heat to 78C. Add B to A with stirring. Mix for 10 minutes and add C. Cool to 40C and add D. Package at room temperature.

Formulation PF-0313 suggested by Rheox, Inc.

SOURCE: Angus Chemical Co.: Product Formulary

Waterproof Suntan Lotion SPF 17

<u>Ingredient:</u>	<u>Wt%*</u>
A: Isostearic Acid	4.00
Cetyl Alcohol	1.00
DEA Cetyl Phosphate	2.00
Dimethicone	0.50
Octyl Methoxycinnamate (Parsol MCX)	7.50
Octyl Salicylate	4.00
Benzophenone-3 (Uvinul M-40)	2.00
Octyldodecyl Neopenanoate (Elefac I-205)	10.00
B: Deionized Water	63.00
Veegum, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.25
Glycerin	4.00
C: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Weigh the water into a suitable vessel and heat to 85C. Dry blend the Veegum and Rhodigel and add them to the water while mixing with a homogenizer at 5000 rpm. Continue mixing for 20 minutes. Add the remaining Part B ingredient and mix 3 minutes. Weigh and mix the Part A ingredients in another vessel and heat them to 85C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing slowly. At 40C, add Part C. Continue cooling and package at 35C.

Formula from Bernel Chemical Co., Inc.

SPF 12 Sunscreen Liposome Lotion

This is an elegant feeling sunscreen in a cold-process lotion containing liposomes for longer lasting protection.

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Deionized Water	58.53
Veegum, Magnesium Aluminum Silicate	1.40
Rhodigel Xanthan Gum	0.18
Cellulose Gum (CMC 7MF)	0.56
B: Glycerin, 99%	3.00
Butylene Glycol (and) Glycerin (and) Chlorophenesin (and) Methylparaben (Killitol)	3.00
Water (and) Octyl Methoxycinnamate (and) Phenyl Trimethicone (and) Cyclomethicone (and) Dimethiconal (and) Phosphoglycerides (and) Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (Sansurf OMC)	23.33
Water (and) Octyl Methoxycinnamate (and) Soy Phospho- glycerides (and) Phenoxyethanol (and) Tocopheryl Acetate (and) Methylparaben (and) Propylparaben (and) Ethylparaben (and) Butylparaben (Sunscreen Liposomes)	10.00

Weigh the water into a suitable vessel and mix with a propeller stirrer at 1800 rpm. Weigh and dry blend the Veegum, Rhodigel and CMC and add them to the water. Continue mixing for 60 minutes at 1800 rpm. Reduce the mixer speed to produce a slight vortex and add the Part B ingredients in the order shown, mixing each for 5 minutes. Package. *As received basis

Formula from Collaborative Laboratories

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulations

Water-Resistant Suntan Lotion**Formula:****% by Weight**

A:	
Deionized Water	60.90
Versene Powder	0.05
Carbomer 934	0.15
B:	
Glycerin	3.00
Propylene Glycol	1.00
Methylparaben	0.20
Ethylparaben	0.15
C:	
Propylene Glycol	2.00
Xanthan Gum	0.10
D:	
Solution of 10% Ethocel (Dow) and Diisopropyl Adipate	10.00
Carnation Mineral Oil (Witco)	10.00
Glyceryl Stearate	3.00
Sorbitan Stearate	1.00
Stearic Acid	2.00
Dimethicone	0.50
Octyl Dimethyl PABA	1.50
White Fonoline Petrolatum (Witco)	1.00
Cetyl Alcohol	1.00
E:	
Deionized Water	1.00
Triethanolamine	0.20
F:	
Deionized Water	1.00
Dowicil 200	0.10
G:	
Perfume	0.15

Procedure:

Begin mixing water without heat; add Versene and dissolve. Sprinkle in Carbomer and mix rapidly. Start heating to 80C. Mix B phase, heat to 80C; add to A when A is above 60C. Mix C, add to A at 60C. Mix D, heat to 80C, add to water phase when both at 80C. Mix E, add to batch, mix 10 min., start to cool. At 45C, add F, then perfume oil.

SOURCE: Witco Corp.: Suggested Formulation

Zinc Oxide Sunscreen (Measured SPF=9.2)

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Glyceryl Stearate	2.50
PEG-40 Stearate	0.75
Cetearyl Alcohol (and) Ceteareth-20	0.75
Tricontanyl PVP	2.00
Caprylic/Capric Triglycerides	5.00
Mineral Oil	5.00
Dimethicone	2.00
B: Zinc Oxide (Zinc Oxide Neutral)	10.00
C: Deionized Water	65.35
Veegum Ultra, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	5.00
Tetrasodium EDTA	0.10
D: DMDM Hydantoin (and) Iodopropynyl Butylcarbamate	0.20
Lactic Acid, 88%	0.10

Weigh the Part C water into a suitable vessel and mix with a propeller stirrer operating at 1800 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel and add them to the water. Mix for 30 minutes at 1800 rpm. Add the remaining Part C ingredients in order and mix until uniform. Begin heating the water phase to 80C. Weigh the Part A ingredients into another vessel and heat to 80C. Add Part B to Part A and mix until uniform. Slowly add Parts A+B to Part C and homogenize at 5000 rpm until uniform. Transfer the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 40C, add Part D. Continue mixing and cooling. Package at 25-30C.

Sunscreen Lotion Using Micronized TiO2

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Propylene Glycol Isoceteth-3 Acetate	8.00
C12-15 Alkyl Benzoate	5.00
Casein (and) Xanthan Gum (Tensami 306)	1.50
Propylparaben (Trisept P)	0.25
B: Deionized Water	67.40
Veegum, Magnesium Aluminum Silicate	0.70
C: Methyl Gluceth-20	5.00
Glycerin	3.00
Methylparaben (Trisept M)	0.25
Titanium Dioxide (Micro Titanium Dioxide MT-500B)	5.00
D: Deionized Water	3.00
Imidazolidinyl Urea (Tristat IU)	0.30
E: Sodium Lactate	0.60

Weigh the water into a suitable vessel and heat to 75C. Mix the water with a homogenizer at 5000 rpm. Add the Veegum to the water and continue mixing for 20 minutes. Add the Part C ingredients in order, mixing each for 5 minutes. Weigh the Part A ingredients into another vessel. Mix and heat them to 75C. Add Part A to Parts B+C and mix for 10 minutes at 75C. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling with continuous, slow mixing. Mix the Part D ingredients and add them at 40C, then add Part E. Continue mixing and cooling. Package at 35C.

*As received basis.

SOURCE: R.T. Vanderbilt Co.: Formulas Haarman & Reimer/Tri-K

Zinc Oxide Sunscreen Cream (PABA/Oxybenzone Free)
Estimated SPF=20

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Octocrylene (Neo Heliopan 303)	7.00
Octyl Methoxycinnamate (Neo Heliopan AV)	7.50
Isocetyl Alcohol	2.00
Cetearyl Alcohol (and) Cetareth-20	2.00
Glyceryl Stearate	3.00
PEG-40 Stearate	1.00
Dimethicone	1.00
Cetyl Alcohol	0.75
Tocopheryl Acetate	0.25
B: Zinc Oxide	6.00
C: Deionized Water	65.30
Veegum Ultra, Magnesium Aluminum Silicate	0.50
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	2.00
Disodium EDTA	0.20
D: Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	1.00

Procedure:

Weigh the Part C water into a suitable vessel and mix with a propeller stirrer operating at 1800 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel and add them to the water. Mix for 30 minutes at 1800 rpm. Add the remaining Part C ingredients in order and mix until uniform. Begin heating the water phase to 75C. Weigh the Part A ingredients into another vessel and heat to 75C. Add Part B to Part A and mix until uniform. Slowly add Parts A+B to Part C and homogenize at 5000 rpm until uniform. Transfer the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 40C, add Part D. Continue mixing and cooling. Package at 25-28C.

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formula from Haarman & Reimer Corp.

Section XII

Miscellaneous

Fluoride Dentifrice*

<u>Ingredients:</u>	<u>% by Weight</u>
Calcium pyrophosphate	45.00
Sorbitol, 70% aq. soln.	20.00
Sodium lauryl sulfate	1.20
Sodium carboxymethylcellulose	0.60
Sodium saccharine	0.10
Stannous fluoride	0.40
Hexetidine	0.20
Flavoring	0.75
Water	31.75

*UK Patent 2,001,526A held by William R. Warner Co. Ltd. (1979)

Mouthwash*

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol	10.00
Glycerol	5.00
Ethoxylated high-purity castor oil (Cremophor EL)	0.25
Zinc Citrate	0.15
Hexetidine	0.20
Flavoring, saccharine	0.10
Water	to 100.00

*European Patent 0,049,830 A2 held by Professor Hans Muehlmann (1982)

Gum-Massage-Gel*

<u>Ingredients:</u>	<u>% by Weight</u>
Water	87.69
Allantoin	1.00
Panthenol	5.00
Cetylpyridinium chloride	0.01
Hexetidine	0.10
Methylcellulose	6.00
Peppermint oil	0.20

*Swiss Patent 622,945 held by Hans Lukaschek and Professor Manfred Maier (1981)

SOURCE: Angus Chemical Co.: Product Formulary

Glycerol Gel Base

Other ingredients may be incorporated as desired.

<u>Ingredients:</u>	<u>% by Weight</u>
Water, deionized	9.00
Stabileze 06	0.50
AMP-95	0.50
Glycerine	89.70
Additives	q.s.
Germall II	0.30

Procedure:

Disperse Stabileze in water with stirring for 10 minutes. Heat the dispersion to 70-80C for 15 to 20 minutes, until thickening occurs. Start cooling. Add AMP with stirring. Mix until uniform. Add glycerine slowly over 10 minutes with stirring. Stir until uniform gel is obtained. Add remaining ingredients, mixing thoroughly after each addition.

Formulation PF-0244E suggested by ISP

Aculyn 33 Fluid Gel Emulsion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	to 100%
Aculyn 33	2.50
Isopropyl myristate	10.00
Imidazolidinyl Urea	0.30
EDTA Na2	0.15
B. AMP-95	2.50

Procedure:

Mix the ingredients in the order listed.

Physical Characteristics:

Appearance: Fluid gel
pH: 7.34
Viscosity: 700 cps

Formulation PF-0387 suggested by Rohm & Haas Co. (PF-039)

SOURCE: Angus Chemical Co.: Product Formulary

Oil Liposome Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Phase 1: Water, dem.	ad 100.00
Panthenol	10.00
Phase 2: Alcohol	13.30
Phase 3: Ultrez 10	0.80
Phase 4: Jojoba Oil	5.00
Titanium Dioxide	0.50
Phase 5: Tris Amino	q.s.
Water, dem.	5.00
Phase 6: Natipide II	5.00
Phase 7: Preservatives, Perfume	q.s.

Manufacture:

1. Manufacturing at room temperature.
2. Slowly add phase 2 to phase 1 while stirring thoroughly.
3. Slowly add phase 3 while stirring thoroughly.
4. Homogenize the mixture intensively.
5. Add phase 4 while stirring thoroughly.
6. Homogenize the mixture intensively.
7. Add phase 5 while stirring thoroughly.
8. Homogenize the mixture intensively.
9. Add phase 6 while stirring thoroughly.
10. Homogenize the mixture intensively.
11. Add phase 7 and homogenize the mixture intensively for a short time.

Formulation PF-0376E suggested by Rhone-Poulenc Rorer.

SOURCE: Angus Chemical Co.: Product Formulary

Ritavena 5 (1.0%)/Acritamer 934 (1.0%) Blend

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	0.00
2. Methylparaben	0.15
Part B:	
3. Ritavena 5	1.00
4. Distilled Water, (100C)	10.00
Part C:	
5. Acritamer 934	1.00
6. Distilled Water	75.80
Part D:	
7. Glydant 40/700	0.25
8. NaOH (20% Solution)	1.80

Compounding Procedure:

Premix A in hot water bath. Premix C. Mix B in Blender for 2 minutes. Mix A and B. Add C. Adjust pH to 7.0 with NaOH solution. Combine. Mix until uniform.

Formulation 111-117

Gel Stick

A solid gel stick obtained by using Behenoyl Lactylate and Propylene Glycol. The addition of Ritavena 5 adds slip and glide for application, and reduces crumbling of edges. The Ritavena 5 also reduces synerisis of the glycol.

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Behenoyl Lactylate	15.00
2. Propylene Glycol	70.00
3. Rita CA	3.00
Part B:	
4. Distilled Water (100C)	6.48
5. Ritavena 5	1.00
Part C:	
6. Sodium Hydroxide (20% Solution)	4.52

Compounding Procedure:

Weigh and heat Part A to 170F. All items should be liquid. Mix until uniform. Premix Part B in a Blender for 2 minutes. Add Part B to Part A. Mix. Adjust pH to 8.5 with Part C. Package while fluid.

Melt point ca. 55C.

Formulation 114-111

SOURCE: R.I.T.A. Corp.: Ritavena 5: Suggested Formulations

Section XIII

Trade–Named Raw Materials

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV-20, B 8851, B 8852, B 88183	Phenyl trimethicone	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil OSW 12	Cyclomethicone/dimethi- conol/dimethicone	Goldschmidt
Abil Quat 3270, 3272, 3474	Quaternium-80	Goldschmidt
Abil S-201	Dimethicone/sodium PG propyl dimethicone/thio- sulfate copolymer	Goldschmidt
Abil Wax 2440	Behenoxy dimethicone	Goldschmidt
Abil Wax 9800	Stearyl dimethicone	Goldschmidt
Abil Wax 9801, 9840	Cetyl dimethicone	Goldschmidt
Abil WE-09	Polyglyceryl-4-isostearate/ cetyl dimethicone copolyol/ hexyl laurate	Goldschmidt
Abil 100, 350	Dimethicone	Goldschmidt
A-C Copolymer 400, 400A	Ethylene-vinyl acetate copolymer	Allied-Sig-
Acetulan	Acetylated lanolin alcohol	Amerchol
Acid Phytosome	Phospholipids	Lipo
A-C Polyethylene 9A, 617, Polyethylene 617A	Polyethylene	Allied-Sig-
Acritamer 934	Carbomer 934	RITA
Acritamer 940	Carbomer 940	RITA
Acritamer 941	Carbomer 941	RITA
Acudyne 255, 41%		Rohm & Haas
Aculyn 22, 33		Rohm & Haas

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Adogen MA-108	Dimethyl stearamine	
Adol 52NF	Cetyl alcohol	Witco
Adol 62, 66	Fatty alcohol	Witco
Advantage CP		ISP
Aerosil 200	Fumed silica	Degussa
Agent 1829-50	Complex of chemicals	Stepan
Aldo MS	Glyceryl fatty acid ester	Lonza
Aldo MSA	Glyceryl stearate & PEG-100 stearate	Lonza
Alfonic 1412-A	Ammonium laureth sulfate	Vista
Alkamide DC 212/S	Alkanolamide	Rhone-
Alkamuls GMS		Rhone-
Alkamuls MM/M		Rhone-
Alkamuls PSML-80		Rhone-
Aloe-Con WG-40	Aloe	Florida
Aloe-Moist	Aloe	Terry
Aloe Vera Lipo Quinone Extract		Terry
Alugel DF30	Aluminum hydroxide	Giulini
Amanduline SG	Hydrolyzed sweet almond protein	RITA
Amaranth 85E123	Dyestuff suspension 1%	BASF
Amerchol L-101	Mineral oil & lanolin alcohol	Amerchol
Ammonyx GA-70 PG	Amine oxide	Stepan
Ammonyx GA-90/GA-70PG	Amine oxide	Stepan
Ammonyx 4	Amine oxide	Stepan
Ammonyx 4B	Stearalkonium chloride	Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Amerlate P	Lanolin fatty acid/ester	Amerchol
Amilan GST 40	DATEM	Goldschmidt
Amphisol A		Givaudan
Amphisol K	Potassium cetyl phosphate	Givaudan
Amphomer	Octylacrylamide/acrylates/ butylaminoethyl methacryl- ate copolymer	Nat Starch
Amphomer 28-4910		Nat Starch
AMP Regular, AMP-95	2-amino-2-methyl-1-propanol	Angus
Ampholyt JB 130/K	Cocamidopropyl betaine	Huls
Amphosol CA, CG		Stepan
Antarox CO 530	Nonoxynol 6	ISP
Antil 141 Liquid	Propylene Glycol & PEG-55 Propylene Glycol Oleate Preservative	Goldschmidt
Antil 171	PEG-18 Glycerol oleate cocoate	Goldschmidt
Aquamollin BC pdr.hc	Ethylenediamine tetraacetic acid sodium salt	Hoechst
Argonol		
Aristoflex A60%	VA/crotonates copolymer, isopropyl alcohol	Hoechst
Arlacel 60	Sorbitan monostearate	ICI
Arlacel 165	Glyceryl stearate & PEG-100 stearate	ICI
Arlacel 186	Glycerol monooleate	ICI
Arlacel 481	Glyceryl sorbitan oleostearate	ICI
Arlacel 989	PEG-7 hydrogenated castor oil	ICI
Arlacel 1689	Polyglycerin & sorbitol	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arlamol HD	Isohexadecane	ICI
Arosurf 66-PE12	Surfactant	Sherex
Arquad T-50	Tallowtrimonium chloride & isopropyl alcohol	Akzo
Avanel S-150	Anionic surfactant	PPG
Avanel S-150 CG	Sodium C12-15 pareth-15	PPG
Bioterge AS-40	Sodium C14-16 olefin sulfonate	Stepan
Balsam HF-F-95-14276	Fragrance	Hogan
Belsil DMC 6032	Dimethicone copolyol	Wacker
Benol	White mineral oil	Witco
Bentone EW	Hectorite clay	Rheox
Bentone Gel CAO, SS71	Rheological additive	Rheox
Biocare Polymer HA-24		Stepan
Biocare SA	Albumen/Hyaluric acid/Dextran sulfate	Stepan
Biron B-50		Rona
Biron ESQ	BiOCl	Rona
Blando1	Mineral oil	Witco
Brij 78	Steareth-20	ICI
Britol 9NF	White mineral oil	Witco
Bronidox L/15		
Brooksme SOD		Brooks
Brookswax P		Brooks

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Brown Red Shade 1654		
Brown Umber Shade 1985		
Burst, RSD-10	Defoamer	Hydrolabs
Butyl Carbitol	Solvent	Union Carb
Butyl Cellosolve	Solvent	Union Carb
C19-011 D&C Red #7 Ca Lake		Rona
C19-022 D&C Red #6 Ba Lake		
Calamide C	Coconut derived amide	Pilot
Calamide CWT	Super amide	Pilot
Calamide F	Modified oleamide DEA	Pilot
Calamide LL	Liquid lauramide DEA	Pilot
Calamide O	Modified coco-oleic diethanol- amide 100%	Pilot
Calblend Clear	Ether sulfate based concentrate	Pilot
Calblend Pearl	Pearlescent concentrate	Pilot
Calendula Oil CLR		Richter
Calfax 10L-45	Disulfonated alkyl diphenyl ether	Pilot
Calfoam ALS-30	Ammonium lauryl sulfate 30%	Pilot
Calfoam EA-603	Ammonium lauryl ether sulfate	Pilot
Calfoam ES-301,ES-302 ES-303	Sodium lauryl ether sulfate 30%	Pilot
Calfoam SLS-30	Sodium lauryl sulfate 30%	Pilot
Calfoam TLS-40	TEA lauryl sulfate 40%	Pilot
Calimulse PRS	Isopropyl linear alkyl benzene sulfonate 90%	Pilot
Caloxylate N-9	Nonyl phenol ethoxylate	Pilot

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Calsoft AOS-40, F-90	Linear alkylate sulfonate	Pilot
Calsoft L-40	Linear alkylbenzene sulfonate	Pilot
Calsoft LAS-99, T-60	Linear alkylate sulfonate	Pilot
Caltaine C-35	Cocamidopropyl betaine	Pilot
Captex 300	Fatty acid ester (med. chain)	Capital
Carbopol ETD 2001, ETD 2020	Carbomer	Goodrich
Carbopol Ultra 10	Carbomer	Goodrich
Carbopol 934	Carbomer 934	Goodrich
Carbopol 940	Carbomer 940	Goodrich
Carbopol 941	Carbomer 941	Goodrich
Carbopol 980	Carbomer 980	Goodrich
Carbopol 981	Carbomer 981	Goodrich
Carbopol 1342	Carbomer 1342	Goodrich
Carbopol 2984	Carbomer 2984	Goodrich
Carbowax E-8000	PEG-150	
Cardre TiO ₂ /Z-Coat/Octylmethoxycinnamate Dispersion		Cardre
Carnation	Mineral Oil	Witco
Carnauba Wax		Keumen
Carnauba #1 Yellow		Keunen
Carrott Oil CLR		Richter
Carsimide SAL-7	Lauramide DEA	Lonza
Carsmol ALS	Ammonium lauryl sulfate	Lonza
Castorwax MP80	Hydrogenated castor oil	CasChem
Cellosize	Hydroxyethylcellulose	Union Carb

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cellose QP 30,000H, QP 52,000H	Hydroxyethyl cellulose	Union Carb
Celquat H-100, L-200	Polyquaternium-4	National
Celquat SC-230M, SC-240C	Polyquaternium-10	National
Ceramide Complex CLR		Richter
Ceraphyl-368	Octyl palmitate	ISP/Van Dyk
Ceraphyl 494	Emulsifier	ISP/Van Dyk
Ceraphyl 868	Emollient	ISP/Van Dyk
Cerasynt IP	Emulsifier	ISP/Van Dyk
Ceresine Wax 130/135		Keunen
Cetiol B	Emollient esters	Henkel
Cetiol HE	PEG-7 glyceryl cocoate	Henkel
Cetiol J600	Emollient esters	Henkel
Cetiol LC	Emollient esters	Henkel
Cetiol MM	Myristyl myristate	Henkel
Cetiol PGL	Emollient esters	Henkel
Cetiol SN	Cetearyl isononanoate	Henkel
Cetiol V	Decyl oleate	Henkel
Cetiol 868	Octyl stearate	Henkel
Cetylstearyl Alcohol		Keunen
Cetylstearyl Alcohol 1618		Proctor&
Chamomile Oil		Dragoco
Citmol 316 TM		
Citroflex-2	Triethyl citrate	Morflex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Clariskin	Yeast extract	RITA
Clearlan	Lanolin	Henkel
Cloisonne' Blue Flambe 650Z:	Cosmetic pearl powders	Mearl
Cloisonne' Cerise Flambe 550Z		
Cloisonne' Monarch Gold 233X		
CMC, CMC 7MF	Carboxymethyl cellulose	Aqualon
CO-1895	Stearyl alcohol	
Coconut Fragrance Oil		Aroma Tech
Collagen KD		GFN
Collagen Secolan BA		Secol
Collamino Complex 40	Collagen amino acids	Brooks
Collasol	Soluble collagen	Croda
Colorona Copper	Pearlescent pigments	Rona
Colorona Red Gold		
Colorona Red Brown		
Comperlan KD	Cocamide DEA	Henkel
Corona PNL	Lanolin	Croda
Cosmetic Tan C33-130	Iron oxide	Sun
Cosmowax K	Stearyl alcohol/ceteareth 20	Croda
Cremerol HMG	Surfactant	Huls
Cremophor A6	Ceteareth-6/stearyl alcohol	Huls
Cremophor A25	Ceteareth 25	BASF
Cremophor EL	Ethoxylated castor oil	BASF
Cremophor RH40	Surfactant	BASF
Crill 6	Sorbitan ester	Croda
Crodacol C-70	Cetyl alcohol	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crodacol C-95	Cetyl alcohol	Croda
Crodacol CS-50	Cetearyl alcohol	Croda
Crodafos CES	Cetearyl alcohol/cetearyl phosphate	Croda
Crodafos N3 Neutral	DEA oleth-3-phosphate	Croda
Crodafos N10 Neutral	DEA oleth-10-phosphate	Croda
Crodafos SG	PPG-5-ceteth-10-phosphate	Croda
Crodamol GTCC	Caprylic/capric triglyceride	Croda
Crodamol IPM	Fatty acid ester	Croda
Crodamol OPG	Octyl pelargonate	Croda
Crodamol OS	Octyl stearate	Croda
Crodamol PMP	PPG-2 myristyl ether propionate	Croda
Crodamol PTC	Pentaerythrityl tetracaprylate/caprate	Croda
Crodasome CM-Glucan	Sodium carboxymethyl B-glucan	Croda
Crodesta SL-40	Sucrose cocoate	Croda
Cromoist CM-Glucan, Cromoist GM-Glucan	Carboxymethyl B-glucan	Croda
Cromoist HYA		Croda
Croquat M	Cationic protein derivative	Croda
Crosilk Powder		Croda
Crotein ADW	Isostearyl hydrolyzed wheat protein	Croda
Crotein Q	Steartrimonium hydroxyethyl hydrolyzed collagen	Croda
Crotein SPO	Hydrolyzed collagen	Croda
Crovol A-40	Modified ethoxylated oil	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crovol A-70	PEG-60 almond glycerides	Croda
Croda M40		Croda
Crovol PK-40	Modified ethoxylated oils	Croda
Cutina GMS	Glyceryl stearate	Henkel
DC Q2-5220	Dimethicone copolyol	Dow Corning
DC Silicone 200/350 cts	Dimethicone	Dow Corning
DC-190	Dimethicone copolyol	Dow Corning
DC 200/200 cs	Dimethicone	Dow Corning
DC 345 Fluid	Cyclomethicone	Dow Corning
DC 556	Phenyl trimethicone	Dow Corning
DC 929 Silicone	Amodimethicone & nonoxynol-10 & tallowtrimonium chloride	Dow Corning
Defensine	Wheat germ extract	RITA
Dehymuls F		Henkel
Dehymuls PGPH		Henkel
Dehyquart E	Hydroxycetyl hydroxyethyl dimonium chloride	Henkel
Dehyquart LT	Laurtrimonium chloride	Henkel
Dehyton AB 30	Coco-betaine	Henkel
Dehyton K	Cocamidopropyl betaine	Henkel
Dentphos K	Dicalcium phosphate	Hoechst
Deodorized Orange Wax		Keunen
Dermacryl, Dermacryl LT	Skin care polymer	National

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dermalcare NI	Skin care polymer	Rhone-Poul
Dermacryl-79	Skin care polymer	National
Dervacid 3155		
Dimethyl Ether		DuPont
Dioctyl Adipate & Octyl Stearate & Octyl Palmitate		Wickhen
Dismutin-BT	Superoxide dismutase	Pentapharm
DL-Panthenol		Roche
DNS Completech MBAC-DS	Chemicals complex	Lipo
Dowanol TPM	Tripropylene glycol methyl ether	Dow
Dow Corning Fluid 200/350 cs.	Dimethicone	Dow Corning
Dow Corning Q2-5220	Dimethicone copolyol	Dow Corning
Dow Corning Silicone 245	Dimethicone	Dow Corning
Dow Corning 190, 193	Dimethicone copolyol	Dow Corning
Dow Corning 200 Fluid	Dimethicone	Dow Corning
Dow Corning 344 Fluid, Cyclomethicone 345 Fluid		Dow Corning
Dow Corning 3225C Fluid		Dow Corning
Dow Corning 7224		Dow Corning
Dowicide A	Antimicrobial agent	Dow
Dowicil 200	Preservative	Dow
D-Panthenol		Hoffman-La
D-Panthenol USP		BASF
D-Panthenol 50P	Panthenol & propylene glycol	BASF
Drakeol-9	Mineral oil	Penreco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Drakeol-21	Mineral oil	Penreco
Drempol 3-1-0, 10-10-0	Emulsifier	Stepan
Dry-Flo PC	Aluminum starch octenylsuccinate	National
DV-3284	Sodium isethionate (55%)	Rhone-Poul
Dymel A, HFC-152a		DuPont
Dynacerin 660	Oleyl erucate	Huls
Edeta BD		BASF
Elastosol Animal Collagen & Elastin		Croda
Elefac I-205	Octyldodecyl neopentaoate	Bernel
Elfacos GT282S	Hydrogenated talloweth-60 myristyl glycol	Akzo
Elhibin	Soy protein	Pentapharm
Emerest 1723	Ester	Henkel
Emerest 2316	Ester	Henkel
Emerest 2407	Glyceryl stearate SE	Henkel
Emerest 2452	Ester	Henkel
Emerest 2486	Ester	Henkel
Emerson-132		Henkel
Emerwax 1266		Henkel
Empicol TL 40t	Anionic surfactant	Albright
Empigen BB	Lauryl betaine	Albright
Empilan EGMS	Surfactant	Albright
Empilan E2502	Cocamide DEA surfactant	Albright

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Empilan LDE	Surfactant	Albright
Emsorb 2500	Sorbitan ester	Henkel
Emulgade 100NI		
Emulgade 1000NI		
Emulgator 2155	Steareth-7&stearyl alcohol&steareth-10	Goldschmidt
Emulsifying Wax		Keunen
Emulsion 25-3800 (50%)		National
Emulsogen EL	PEG-36 castor oil	Hoechst
Emulsogen LP	Oleth-5	Hoechst
Ervol	White mineral oil	Witco
Escalol 507	Octyl dimethyl PABA	ISP Van Dyk
Escalol 557	Sunscreen	ISP Van Dyk
Escalol 567	Benzophenone-3	ISP Van Dyk
Estol EHP/EHP 1543/1462	Cosmetic ester	Unichema
Ethocel	Ethyl cellulose	Dow
Ethoquad O/12	PEG-2 oleammonium/isopropyl alcohol	Armak
Eumulgin VL 75	Cosmetic emulsifier o/w	Henkel
Eusolex 232/232TS/6300	Sunscreen	EM
Eutanol G	Octyl dodecanol	Henkel
Euxyl K-400	Cosmetic preservative	Calgon
Ewalan ODE-50	Octyldodecyl lanolate	Wagner
Extrapon Chamomile Special		Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Extrapon Witch Hazel		Dragoco
Extrapone 3 Special	Chemical complex	Dragoco
Extrakt 52		Zschimmer
FG-10 Antifoam Simethicone Emulsion		Dow Corning
Finsolv SB		Finetex
Finsolv TN	C12-15 alkyl benzoate	Finetex
Firming Liposome		Collaborat
Fitobroside	Water/glycolipids/phospho- lipids/carbohydrates	Pentapharm
Fitoderm	Squalane	Centerchem
Flamenco Superpearl	120C cosmetics pigment	Mearl
Flexan 130	Sodium polystyrene sulfonate	National
Fluilan	Liquid lanolin	Croda
Foraha Oil		Keunen
Fragrance	Black Dragon II 0/23511	Dragoco
Fragrance	Chiara 0/238927	Dragoco
Fragrance	Solara 0/227632	Dragoco
Fragrance	PCV 1677	Givaudan
Fragrance	Rivalia 0/221212	Dragoco
Fragrance	Timbuktu 0/186901	Dragoco
Fragrance Bellefresh		Haarman
Fragrance J-5390		Bell
Fragrance	Limobain A. 116.830	Haarman
Fragrance	Men at Sport 61569	Haarman

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Fragrance Q4696		Quest
Fragrance #S-5704		Fine Flav
Fragrance Tendresse 75418B		Haarman &
Fragrance #99189 "Twister"		Croon
G-4909		
Gafquat HS-100	Cationic copolymer	ISP
Gamma Orzanol		Keunen
Gantrez ES225, ES425	Vinyl ether polymer	ISP
Gelita Sol C	Hydrolyzed collagen	Dt.Gelatin
Gelwhite GP	White montmorillonite	ECC
Gemstone Moonstone G004	Cosmetic pearl powder	Mearl
Genagen CAB	Cocamidopropyl betaine	Hoechst
Genamin CTAC	Cetrimonium chloride	Hoechst
Genamin DSAC	Distearyldimonium chloride	Hoechst
Genamin KSL	PEG-5 stearyl ammonium lactate	Hoechst
Genapol AMG	Magnesium PEG-3 cocamide sulfate	Hoechst
Genapol L-3	Laureth-3	Hoechst
Genapol LRO Liquid, Paste	Sodium laureth sulfate	Hoechst
Genapol TSM	PEG-3 distearate, sodium laureth sulfate	Hoechst
Genapol ZRO Liquid	Sodium laureth sulfate	Hoechst
Generol 122, 122E-10		
Germaben II	Cosmetic preservative	Sutton

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Germaben II-E	Cosmetic preservative	ISP Sutton
Germall II	Diazolidinyl urea	ISP Sutton
Germall 115	Imidazolidinyl urea	ISP Sutton
Geropon AS-200		Rhone-Poul
Geropon SBFA-30		Rhone-Poul
Geropon TC-42		Rhone-Poul
Gorgonian Extract	Butylene glycol/sea whip extract	Lipo
Glucam E-10	Methyl gluceth-10	Amerchol
Glucam E-20	Methyl gluceth-20	Amerchol
Glucam E-20 Distearate	Methyl glucose sesquistearate	Amerchol
Glucamate DOE-120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	PEG-20 methyl glucose sesqui- stearate	Amerchol
Glucate DO	Methyl glucose dioleate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glycamil		Allied-Sig
Glycerol Monostearate		Keunen
Glycerox HE	PEG-7 glyceryl cocoate	Croda
Glydant	DMDM hydantoin	Lonza
Glydant Plus	DMDM hydantoin	Lonza
Glydant 40/700	DMDM hydantoin	Lonza

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hair Monster U800 025	Fragrance	dram Frag-
Hampene Na2T	Chelating agent	Hampshire
Hampene Na3T	Chelating agent	Hampshire
Hamamelis Water	Witch hazel	Dragoco
Hamp-ene 100	Tetrasodium EDTA chelating agent	Hampshire
Hampol OL	Chelating agent	Hampshire
HDK N20	Highly dispersed silicic acid	Wacker-
H.E. Chamomile	Anthemis nobilis (Chamomile extract)	PJ Cosmet-
H.E. Ginseng	Ginseng extract	PJ Cosmet-
Hetester PHA	Propylene glycol isoceteth-3 acetate	Berne1
Hexanediol Behenny1	Beeswax	Keunen
Hexetidine		Angus
Hispage1 200		
Hoechst Potassium Sorbate		Hoechst
Hoechst Sorbic Acid		Hoechst
Hombitec L5	Titanium dioxide	Sachetleben
Hostacerin CG		Hoechst
Hostacerin DGI	Polyglyceryl-2 sesquiosostearate	Hoechst
Hostacerin DGL	Polyglyceryl-2 PEG-10 laurate	Hoechst
Hostacerin DGMS	Polyglyceryl-2 stearate	Hoechst
Hostacerin DGS	Polyglyceryl-2-PEG-4 Stearate	Hoechst
Hostacerin T-3	Cetareth-3	Hoechst
Hostacerin WO		Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hostacerin WOL	Chemical complex	Hoechst
Hostaphat KL340N	Trilaureth-4 phosphate	Hoechst
Hostaphat KML	Laureth-4 phosphate, polyglyceryl-2, sesquiosostearate	Hoechst
Hostapon CT-Paste	Sodium methyl cocoyl taurate	Hoechst
Hostapon KCG	Sodium cocoyl glutamate	Hoechst
Hostapon SCI, SCID	Sodium cocoyl isethionate	Hoechst
Hubersorb 600		Huber
Hyasol-BT	Sodium hyaluronate	Pentapharm
Hydrofol Acid 1655CG	Fatty acid and glycerides	Sherex
Hydrolyzed Wheat Protein		VegeTech
Hydrosoy 2000/SF		Croda
Hydroviton	Chemicals complex	Dragoco
Hydrotriticum QL		Croda
Hydrotriticum WAA	Wheat amino acids	Croda
Hydrotriticum 2000	Wheat protein hydrolyzates	Croda
Hydroxy Polyester		Keunen
Hypan QT-100	Polyquaternium-31	Lipo
Hypan SA 100H		
Hypan SR 150H		
Hypure N	Sodium hypochlorite, 10% soln	Olin

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Igepal CO-630	Nonoxynol	ISP
Immucell	Glycoproteins	Pentapharm
Imwitor 370	Glyceryl stearate citrate	Huls
Imwitor 375	Glyceryl citrate/lactate/ linoleate/oleate	Huls
Imwitor 377	Glyceryl laurate/citrate/ lactate	Huls
Imwitor 780K	Isostearyl diglyceryl succinate	Huls
Imwitor 900	Glyceryl stearate	Huls
Imwitor 928	Glyceryl cocoate	Huls
Incrocas-40	PEG-40 castor oil	Croda
Incromectant LAMEA	Acetamide MEA/Lactamide MEA	Croda
Incromide LR	Lauramide DEA	Croda
Incromine Oxide C	Cocamidopropylamine oxide	Croda
Incronam 30	Cocamidopropyl betaine	Croda
Incroquat Behenyl HE	Behenamidopropyl hydroxyethyl dimonium chloride	Croda
Incroquat Behenyl TMS	Behentrimonium methosulfate/ cetearyl alcohol	Croda
Incroquat CTC-30	Cetrimonium chloride	Croda
Incroquat HO-80PG	Dioleoylamidoethyl hydroxy- ethylmonium methosulfate	Croda
Incroquat SDQ-25	Quaternary cosmetic conditioner	Croda
Iso-Adipate	Diisopropyl adipate	Dragoco
Isolan DO	Methylglucose dioleate	Goldschmidt
Isolan GI-34	Polyglyceryl-4 isostearate	Goldschmidt
Isolan GO-33	Polyglyceryl-3 oleate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Isopropyl Isostearate		Unichema
Isostearic Acid		Unichema
Ivarlan AWS	PPG-12 PEG-65 lanolin oil	Brooks
Irgasan DP300	Triclosan bacteriostat	Ciba-Geigy
Jaguar C14S	Guar hydroxypropyltrimonium chloride	Rhone-Poul
Jaguar C-162	Guar gum	Rhone-Poul
Jaguar HP-60	Hydroxypropyl guar	Rhone-Poul
Jordapon ACI-30	Ammonium cocoyl isethionate	PPG
Jordapon CI-UP	Sodium cocoyl isethionate	PPG
Jordapon CI-60/ CI-75	Sodium cocoyl isethionate/ stearic acid	PPG
K80-D22		Keunen
Kaolin 2457		
Karion F Liquid		E.Merck
Kathon CG/ CG100	Methylchloroisothiazolinone/ methylisothiazolinone	Rohm & Haas
Keltrol CG-T/F	Xanthan gum	Kelco
Kerasol		Croda
Kera-Tein 1000 AS	Ethyl ester of hydrolyzed keratin	Maybrook
Kessco Cetyl Alcohol		Stepan
Kessco EGMS		Stepan
Kessco Ethylene Glycol Distearate		Stepan
Kessco GMS-Pure		Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Kessco GMS S.E./A.S.		Stepan
Kessco ICS		Stepan
Kessco IPM		Stepan
Kessco IPP		Stepan
Kessco Octyl Isononanoate		Stepan
Kessco PEG 400 Dilaurate		Stepan
Kessco PEG 400 DL		Stepan
Kessco PEG 6000 DS		Stepan
Kessco-653	Fatty ester	Stepan
Kester Wax 82		Keunen
Killitol	Butylene glycol/glycerin/chlorophenesin/methylparaben	Collabora
Klearol	White mineral oil	Witco
Klucel G	Hydroxypropyl cellulose	Aqualon
Kuikui Nut Oil		Oils Aloha
Lactil	Chemicals complex	Goldschmidt
Lactomide	Water/phospholipids/ceramides	
Lameform TGI		
Lanapene		Lanaetex
Lanesta S	Isopropyl myristate	Lanaetex
Laneto-50	PEG-75 lanolin	RITA
Lanette-0	Cetearyl alcohol	Henkel
Lanette 16	Cetyl alcohol	Henkel
Lanocerin	Lanolin wax	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lanol 37T		Seppic
Lanolin USP		RITA
Lanolin USP X-TRA Deo		RITA
Lasemul 92AE		
Lathanol LAL	Foaming agent	Stepan
Lexamine S-13	Cationic emulsifier	Inolex
Lexemul	Cosmetic emulsifier	Inolex
Lexemul 515	Cosmetic emulsifier	Inolex
Lexgard M	Methyl paraben	Inolex
Lexgard P	Propyl paraben	Inolex
Lipex 102	Shea butter	Lipo
Lipex 106	Illipe butter	Lipo
Lipex 203	Mango kernal oil	Lipo
Lipex 205	Canola oil	Lipo
Lipocol C	Cetyl alcohol	Lipo
Lipocol C-10		Lipo
Lipocol 0/95		Lipo
Lipocol S-2		Lipo
Lipocol S-10/S-20	Poloxyethylene fatty ether	Lipo
Lipo Fruit Acid Complex	Glycolic acid (and) tamarind extract	Lipo
Lipogard	Squalane (and) Ubiquinone	Pentapharm
Lipo GMS 450	Glyceryl stearate	Lipo
Lipolan 31	Lanolin derivative	Lipo
Lipol PG 855		Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipomulse 165	Glyceryl stearate/PEG-100 stearate	Lipo
Liponate DPC-6/GC	Fatty ester	Lipo
Liponate IPM	Fatty ester	Lipo
Liponate IPP	Fatty ester	Lipo
Liponate NPGC-2	Neopentylglycol dicaprylate/dicaprate	Lipo
Liponate SPS	Fatty ester	Lipo
Liponate TDTM	Fatty ester	Lipo
Liponic EG-1	Glycereth-26	Lipo
LipoPearl Green		Lipo
Lipopeg 6000 DS	PEG-150 distearate	Lipo
Lipoquat R	Fatty acid amide ethosulfate	Lipo
Liposorb L-20	Sorbitan ester	Lipo
Lipo Stearic Acid		Lipo
Lipovol MOS-70	Natural vegetable oil	Lipo
Lipovol PAL	Natural vegetable oil	Lipo
Lipovol SAF	Safflower oil	Lipo
Lipovol SES	Sesame oil	Lipo
Lipowax D	Cetearyl alcohol/ceteareth-20	Lipo
Lipowax G	Stearyl alcohol/ceteareth-20	Lipo
Lipowax NI	Self-emulsifying wax	Lipo
Lipowax P	Emulsifying wax, NF	Lipo
Liquapar Oil	Preservative	Sutton
Lovocryl-47	Octylacrylamide/acrylates butylaminoethyl methacrylate copolymer	National

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lunacera M	Hydrogenated microcrystalline wax	HBFuller
Luvimer Low VOC		BASF
Luvimer 36D		BASF
Luvimer 100P		BASF
Luviquat Mono CP	Polyquaternium	BASF
Luviskol K30/K90/ VA73E/VA73W/VA641	PVP	BASF
Luvitol EHO	Cetearyl octanoate	BASF
Macademia Nut Oil		Oils Aloha
Macol CPS/124	Polyoxyethylene fatty ether	PPG
Mafo CAB	Cocamidopropyl betaine	PPG
Mafo CSB-50	Cocamidopropyl hydroxy sultaine	PPG
Magnabrite	Stabilizing, suspending agent	AmColloid
Magnesium Stearate-D		Witco
Mapeg EGMS	Glycol stearate	PPG
Mapeg 6000 DS	PEG-150 distearate	PPG
Maprosyl 30		Stepan
Marlinat CM 100/80	Laureth-11 carboxylic acid	Huls
Marlinat 242/28	Sodium +laureth sulfate	Huls
Marlipal 1618/25	Ceteareth-25	Huls
Masil SF-V Fluid	Cyclomethicone	PPG
Masil 280	Dimethicone copolyol	PPG
Masil 656 Fluid	Silicone	PPG
Maypon 4C	Potassium cocoyl-hydrolyzed collagen	Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mazamide CMEA	Cocamide CMEA	PPG
Mazamide JT-128	Cocamide DEA	PPG
Mazamide SS-10	Soyamide DEA	PPG
Mazox CAPA	Cocamidopropyl amine oxide	PPG
MEA Borate and MIPA Borate		Mona
Mearlite GBU	Synthetic pearl pigment	Mearl
Mearlmica CF/SVA	Cosmetic mica powder	Mearl
Mearltalc TCA	Talc	Mearl
Medialan LD	Sodium lauroyl sarcosinate	Hoechst
Merquat 550	Polyquaternium-7	Calgon
Methocel E/E4M/ K100LV/40-100	Hydroxypropyl methylcellulose	Dow
Mica M-RP		Rona
Microcel E		Rona
Microcrystalline W445 Wax		Witco
Micro Titanium Dioxide MT-500B	Titanium dioxide	Tri-K
Microwhite 100		ECC
Miglyol Gel B	Caprylic/capric triglyceride/ stearylalkonium hectorite/propylene carbonate	Huls
Miglyol 810/812	Caprylic/capric triglyceride	Huls
Miglyol 818	Caprylic/capric/linoleic triglyceride	Huls
Miglyol 829	Caprylic/capric/diglyceryl succinate	Huls
Miglyol 840	Propylene glycol dicaprylate	Huls
Milfoil Extract		Kelisema

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mineral Colloid BP	Montmorillonite	ECC America
Mineral Oil and Lanolin Alcohol		Amerchol
Minosil		Pride Solv
Miracare BC-10		Rhone-Poul
Miracare CT-100		Rhone-Poul
Miracare MPC		Rhone-Poul
Miracare MS-1		Rhone-Poul
Miranol BT	Surfactant	Rhone-Poul
Miranol C2M-SF70%	Cocoamphocarboxyglycinate	Rhone-Poul
Miranol C2M-SF Conc.	Disodium cocoamphodipropionate	Rhone-Poul
Miranol Ultra	Surfactant	Rhone-Poul
Modulan	Acetylated lanolin	Amerchol
Monafax 160	Phosphate ester	Mona
Monafax 1214	Deceth-4-phosphate	Mona
Monamate CPA-40	Mild anionic detergent	Mona
Monamate LNT-40	Mild anionic detergent	Mona
Monamid CMA	Cocamide MEA	Mona
Monamid 150-ADD	Cocamide DEA	Mona
Monamid 716	Lauramide DEA	Mona
Monamid 1089	Super fatty alkanolamide	Mona
Monamuls 60-35C		Mona
Monaquat TG	Quaternary phospholipid cpd.	Mona
Monaterge 1164	Sodium lauryl sulfate/disodium lauryl sulfosuccinate	Mona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monateric CM-36S	Mild amphoteric emulsifier	Mona
Monateric 805	Disodium cocoamphodiacetate/ disodium cocamido MIPA-sulfo- succinate	Mona
Monateric 951A	Mild amphoteric emulsifier	Mona
Monawet MO-75E	Wetting agent	Mona
Monazoline CY	1-hydroxyethyl-2-caprylimid- azoline	Mona
Montan OV 68		Seppic
MPC-Milk Peptide Complex		Richter
M-Pyrol	n-Methyl Pyrrolidone	ISP
Mulgofen ON-870		Rhone-Poul
Myacide SP	2,4-dichlorobenzyl alcohol	Inolex
Myritol 318		
Myrj 52	Polyoxyethylene stearate	ICI
Myrj 52S	PEG-40 stearate	ICI
Myrj 59	PEG-100 stearate	ICI
Na-Hyaluronate Seluron Solution		Secol
Natipide II		Natterman
Natrosol Plus 330 CS/ 250HHR/250HHR CS/ 250HHX/250HR/250HR CS	Hydroxyethyl cellulose	Aqualon
Natural Beeswax		Rita
Naturechem EGHS	Castor oil derivative	CasChem

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Naturechem GMHS	Castor oil derivative	CasChem
Naturechem OHS	Cosmetic ingredient	CasChem
Neobee M-5	Caprylic/capric triglyceride	Stepan
Neobee M-20	Cosmetic oil	Stepan
Neodol 23-6.5	C12-C13 linear primary alcohol ethoxylate	Shell
Neo-Heliopan AV	Octyl methoxycinnamate	Haarman
Neo-Heliopan BB	Benzophenone-3	Haarman
Neo-Heliopan, Hydro	Phenylbenzimidazole sulfonic acid	Haarman
Neo-Heliopan MA	Menthyl anththranilate	Haarman
Neo-Heliopan OS	Octyl salicylate	Haarman
Neo-Heliopan E1000	Isoamyl-p-methoxycinnamate	Haarman
Neo-Heliopan 303	Octocryline	Haarman
N-Hance 3000	Cationic guar	Aqualon
Nimlesterol D	Mineral oil	Malmstrom
Ninol 30-LL	Alkylolamides	Stepan
Ninol 40-CO	Cocamide DEA	Stepan
Ninol 55-LL	Alkylolamide	Stepan
Ninol 96-SL	Alkylolamide	Stepan
Nipacide PX		Nipa
Nipagin M	Methyl paraben	Nipa
Nipaguard BPX		Nipa
Nipaguard DMDMH	DMDM hydantoin	Nipa
Nipasol	Propyl paraben	Nipa

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Nipastat	Microbiocide	Nipa
Nuosept C		Nipa
Nutrilan L	Hydrolyzed collagen	Henkel
Octopirox	Piroctone alamine	Hoechst
Ohlan	Hydroxylated lanolin	Amerchol
Omnirez 2000		ISP
Opatint	FD&C aluminum lake concentrate	Colorcon
Orange Wax		Keunen
Orgasol 2002D Nat Cos Nylon-12		Atochem
Orgasol 2002UD Nat Cos Nylon-12		Atochem
Oxetal VD 20		Zschimmer
Oxynex LM	Antioxidant	Zschimmer
Oxynex 2004	Antioxidant	Zschimmer
Oxypon 2145		Zschimmer
Oyster Nut Oil		Keunen
Ozokerite Wax		Int Wax
Ozokerite Wax		Keunen
Ozokerite Wax		Ross
Ozokerite White 170		
Ozokerite 64W		
Ozokerite #77W		
Ozokerite 160/164		Keunen
Ozokerite 164/170		Keunen

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Panalane	Hydrogenated isobutylene	Amoco
Panalane L-14E	Hydrogenated isobutylene	Amoco
Paraffin Oil	Mineral oil	Merck
Paraffin 150/155		Keunen
Paraffin 160/165		Keunen
Parsol MCX	Octyl methoxycinnamate	Givaudan
Parsol 1789	UV-A sunscreen	Givaudan
Pationic ISL	Sodium isostearoyl lactylate	RITA
Pationic ISL/85	Sodium isostearyl lactylate 85%	RITA
Pationic SSL	Sodium stearoyl lactylate	RITA
Patlac IL	Isostearyl lactate	RITA
Patlac LA	Lactic acid	RITA
PCL Liquid		Dragoco
Peach Floral 92F/3235	Fragrance	Fragrance
Pearlescent Pigments		Rona
Pecosil CAP-1240		Phoenix
Pecosil PS-100	Dimethicone copolyol phosphate	Phoenix
Pecosil SMQ-40	Silicone quaternium-5	Phoenix
Pecosil SPB-1240	Silicone quaternium-6	Phoenix
PEG Carnauba		Keunen
Pelan Black		
Pemulen TR-1	Acrylates/C10-30 alkyl acrylate	Goodrich
Pemulen TR-2	Polymeric emulsifier	Goodrich
Pentalyn C	Synthetic resin	Hercules

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pentavitin	Saccharide isomerate	Pentapharm
Peptein 2000	Hydrolyzed animal protein	Hormel
Perfecta	Petrolatum	Witco
Perfume	Courage 0/243101	Dragoco
Perfume 726096	Fragrance	Haarman
Permethyl 101A/102A/ 104A	Aliphatic hydrocarbon	Permethyl
Permulin D	Custom blended wax	Keunen
Pg-3 Beeswax	Cera Bellina	Keunen
Phoenamid CD	Cocamide DEA	Phoenix
Phoenamid LD	Lauramide DEA	Phoenix
Phoenate SLES-70	Sodium laureth sulfate	Phoenix
Phoenate 3SDA	PEG-3 distearate	Phoenix
Phoenonip	Liquid preservative system	Nipa
Phoskadent Na211	Dental grade phosphate	BK-Laden-
Phospholipid EFA/GFA/ PTC/SV	Biomimetic phospholipid	Mona
Phosphoteric QL-38	Trisodium lauroampho PG acetate phosphate chloride	Mona
Phytaluronate	Locust bean gum	Pentapharm
Pilot SXS-40/SXS-96	Hydrotrope	Pilot
Pluracare F127		BASF
Plurafac C-17	Oxyethylated alcohol	BASF
PNC 400	Sodium carbomer	3V GmbH
Polawax	Emulsifying wax NF	Croda
Polawax A-31	Emulsifying wax NF	Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polestar 400A	Calcined clay	ECC America
Polybutene H-100		
Polyethylene 6A/9A		
Polymer JR400	Polyquaternium-10	Amerchol
Polypeptide LSN	Hydrolyzed collagen	Inolex
Polyquta 400/3000	Polyquaternium-10	RITA
Polysynlane	Hydrogenated polyisobutene	Polyester
PPG-36 Castor Oil		PPG
Pricerine 9083	Glycerine	Unichema
Prifac 2942	Myristic acid	Unichema
Pristerine 4904	Stearic acid	Unichema
Procetyl 10	Alkoxylated cetyl ether	Croda
Procol CS-20D		
Prodew 100	Sorbitol/sodium lactate/pro- line/sodium PCA/hydrolyzed collagen	Ajinomoto
Promois ECP	Collagen	RITA
Promois WS	Hydrolyzed soy protein	RITA
Promulgen D	Cetearyl alcohol/ceteareth-20	Amerchol
Pronalen Fruit Acid AHA-5 Lemon & Passion Fruit Conc.		Centerchem
Propellant A-46	Hydrocarbon propellant	PhillipsPet
Propylene Glycol/diazolidinyl urea/methylparaben/ propylparaben		Sutton
Protectan	Lactococcus lactis lysate	Richter
Purcellin Oil	Cetearyl octanoate/isopropyl myristate	Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Purcellin Oil 2/066210	Cetearyl octanoate	Dragoco
Purton SFD	Fatty acid alkanolamide	Zschimmer
PVP K-30	PVP	ISP
PVP/VA E-735	PVP/VA copolymer	ISP
Raffermine	Hydrolyzed soy flour	RITA
Reductine	Oat protein	RITA
Resyn 28-1310/ 28-2930/28-3307	Hair spray polymer	National
Revitalin-BT	Glycoproteins	Pentapharm
Rewoteric AM B14	Cocamidopropyl betaine	Witco
Rewoteric AM B14LS	Cocamidopropyl betaine	Witco
Rheolate 5000	Acrylate/Va copolymer	Rheox
Rhodafac RA-600	Deceth-4 phosphate	Rhone-Poul
Rhodapex ES	Ether sulfate	Rhone-Poul
Rhodaquat D261C/75		Rhone-Poul
Rhodigel	Xanthan gum	Vanderbilt
Rhodopol 23/50MD	Xanthan gum	Vanderbilt
Rice Bran Oil		Keunen
Ritabate-20	Polysorbate-20	RITA
Ritabate-60	Polysorbate-60	RITA
Ritabate-80	Polysorbate-80	RITA
Rita CA	Cetearyl alcohol	RITA
Ritacet-20	Ceteareth-20	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rita Cetearyl Alcohol (50/50)		RITA
Rita Cetearyl Alcohol (70/30)		RITA
Ritaceti	Cetyl esters	RITA
Ritacetyl	Acetylated lanolin	RITA
Ritachol	Mineral oil/lanolin alcohol	RITA
Ritachol 1000	RITA Blend	RITA
Ritachol 2000	Cetearyl alcohol/polysorbate-60	RITA
Rita CTAC-605	Cetrimonium chloride	RITA
Ritaderm	Petrolatum/lanolin/sodium PCA/ polysorbate 85	RITA
Rita EGDS	Glycol distearate	RITA
Rita EGMS	Glycol stearate	RITA
Rita GMS	Glyceryl stearate	RITA
Rita HA C-I-C	Sodium hyaluronate	RITA
Ritahydrox	Hydroxylated lanolin	RITA
Rita IPM	Isopropyl myristate	RITA
Rita IPP	Isopropyl palmitate	RITA
Ritalan	Lanolin oil	RITA
Ritaloe 1X	Aloe vera gel	RITA
Ritaloe 200M	Aloe vera gel	RITA
Ritamide C	Cocamide DEA	RITA
Ritapan D	d-Panthenol	RITA
Ritapan DL	dl-Panthenol	RITA
Ritapeg 150 DS	PEG-150 distearate	RITA
Rita PEO-1	PEG-5M	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rita PEO-3	PEG-23M	RITA
Ritapro 100	RITA blend	RITA
Ritapro-165	Glyceryl stearate/PEG-100 stearate	RITA
Ritapro 300	Cetearyl alcohol/ceteareth-20	RITA
Rita SA	Stearyl alcohol	RITA
Ritasil 190	Dimethicone copolyol	RITA
Ritasol	Isopropyl lanolate	RITA
Rita SSO	Sunflower seed oil	RITA
Rita Stac-80	Steartrimonium chloride	RITA
Ritasynt IP	Glycol stearate and others	RITA
Ritataine	Cocoamidopropyl betaine	RITA
Ritavena-5	Hydrolyzed oat flour	RITA
Ritawax	Lanolin alcohol	RITA
Ritawax ALA	Cetyl acetate/acetylated lanolin alcohol	RITA
Ritawax 15	Lanolin alcohol	RITA
Ritox 52	PEG-40 stearate	RITA
Ritox 59	PEG-100 stearate	RITA
Rona Pearl Pigment Combinations		Rona
Rosswax 15-1182	Wax	Ross
Rosswax 26-1152	Wax	Ross
Rosswax 1824	Wax	Ross
Rovisome Ace	Vitamin blend	RITA
Rovisome-AHA	Lactic acid	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rovisome C	ROVI blend	RITA
Rovisome HA	Lecithin/alcohol/sodium hyaluronate	RITA
Sansurf OMC	Chemical complex	Collabora-
Schercemol CO	Cetyl octanoate ester	Scher
Schercemol CP	Ester	Scher
Schercemol DID	Diisopropyl dimer dilinoleate	Scher
Schercemol 185	Ester	Scher
Selastin EL-10		Secol
Sericin		Pentapharm
SF-1204/SF1214	Dimethicone	DowCorning
Shea Butter		Keunen
Shebu WS	PEG-50 shea butter	RITA
Shellsol D40	Petroleum distillates	Shell
Shellsol T	Petroleum distillates	Shell
Shinju 100T	Synthetic pearl pigment	Mearl
Sicomet	Dyestuff	BASF
Sicomet Blue S42045	Dyestuff suspension 1%	BASF
Sicomet Red F12150		BASF
Silicone 7207		OSI Special
Siliconyl Beeswax		Keunen
Silk Mica		Rona
Silk'n Soluble Liquid		Dasco
Siltex M Super		Rona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Simchin Natural	Jojoba oil	RITA
Sipon ES2	Sodium laureth sulfate (2 mole)	Rhone-Poul
Sipon LT-6	TEA lauryl sulfate	Rhone-Poul
Sipon 201-10		Rhone-Poul
Softigen 701	Glyceryl ricinoleate	Huls
Softigen 767	PEG-6 caprylic/capric glycerides	Huls
Softisan 100	Hydrogenated coco-glycerides	Huls
Softisan 378	Caprylic/capric/stearic triglyceride	Huls
Softisan Gel	Complex of chemicals	Huls
Softisan 601	Glyceryl cocoate/hydrogenated coconut oil/ceteareth-25	Huls
Softisan 645/649	Bis-diglyceryl polyacyl adipate-2	Huls
Solagum L		Seppic
Soltrol 100	C9-11 isoparaffin	Phillips
Solulan 16	Laneth-16/ceteth-16/oleth-16/steareth-16	Amerchol
Solulan 98	Polysorbate 80/cetyl acetate/acetylated lanolin alcohol	Amerchol
Solu-Soy EN25		Brooks
SS4267	Dimethicone/trimethyl-siloxysilicate	GESilicone
Starfol OS	Difatty ester	Sherex
Stabileze XL-80W		ISP
Stabileze 06		ISP
Standamid KD	Cocamide DEA	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Standamid LD		Henkel
Standapol A	Ammonium lauryl sulfate	Henkel
Standapol ES1 (30%)	Sodium laureth sulfate	Henkel
Standapol ES-2	Sodium laureth sulfate	Henkel
Standapol T	TEA lauryl sulfate	Henkel
Standapol WAQ-LC	Sodium lauryl sulfate	Henkel
Standapol WAQ Spec.	Sodium lauryl sulfate	Henkel
Steol CA-130/CS-130/ CS-230/CS-330/CS-460	Alcohol ether sulfate	Stepan
Stepan-Mild BSB		Stepan
Stepan-Mild LSB		Stepan
Stepan-Mild SL3		Stepan
Stepanol AM	Ammonium lauryl sulfate	Stepan
Stepanol AM-V/ ME-Dry/WA-Extra	Alkyl sulfate	Stepan
Stepanol WAT	TEA lauryl sulfate	Stepan
Stepan TAB-2		Stepan
Sunett	Acesulfame K	Hoechst
Sunflower Oil		Lipo
Sunscreen Liposomes	Complex of chemicals	Collaborat-
Super Floss	Diatomaceous earth	Manville
Super Hartolan	Lanolin alcohol	Croda
Super Refined Wheat Germ Oil		Croda
Supersat AWS-4	PEG-20 hydrogenated lanolin	RITA
Supra Talc	Premium talc	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Syncrowax AW1-C	Synthetic wax	Croda
Syncrowax ERL-C	Synthetic wax	Croda
Syncrowax HGL-C	C18-36 acid triglyceride	Croda
Syncrowax HR-C	Synthetic wax	Croda
Synthetic Candelilla		Keunen
Tagat L	PEG-20 glyceryl laurate	Goldschmidt
Tagat O	PEG-30 glyceryl oleate	Goldschmidt
Talc 141		Whittaker
Talc 1625		
TEA Salicylate	TEA salicylate in propylene glycol	Haarman
Technocell 90DV		
Tech-O 11-070 Ster-O-Pro		Beacon CMP
Tech-O 11-075 Concentrated Oat Protein		Beacon CMP
Tegin	Glyceryl stearate S.E.	Goldschmidt
Tegin M	Glyceryl stearate	Goldschmidt
Teginacid C		Goldschmidt
Teginacid H	Glyceryl stearate/ceteth-20	Goldschmidt
Tegin EGS	Glycol distearate	Goldschmidt
Tegin M	Glyceryl stearate	Goldschmidt
Tego Alkanol 16	Cetyl alcohol	Goldschmidt
Tego Amid S18	Stearamidopropyl dimethylamine	Goldschmidt
Tego Betaine E/F/F50/ L7	Cocamidopropyl betaine	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tego Care 450	Polyglyceryl-3 methylglucose distearate	Goldschmidt
Tego Deo HY77	Zinc rincinoate/triethanol-amine/dipropylene glycol/lactic acid	Goldschmidt
Tego Glucosid L55	Lauryl glucoside/cocamido-propyl betaine	Goldschmidt
Tego Glucosid 1216	Lauryl glucoside	Goldschmidt
Tego Pearl N100	Glycol distearate/steareth-4	Goldschmidt
Tegosoftware CI	Cetearyl isononanoate	Goldschmidt
Tegosoftware CT	Caprylic/capric triglycerides	Goldschmidt
Tegosoftware DO	Decyl oleate	Goldschmidt
Tegosoftware GC	PEG-7 glyceryl cocoate	Goldschmidt
Tegosoftware Liquid	Cetearyl octanoate	Goldschmidt
Tegosoftware M	Isopropyl myristate	Goldschmidt
Tegosoftware OP	Octyl palmitate	Goldschmidt
Tegosoftware OS	Octyl stearate	Goldschmidt
Tegosoftware P	Isopropyl palmitate	Goldschmidt
Tegosoftware S	Isopropyl stearate	Goldschmidt
Tenox BHT	Antioxidant	Eastman
Tenox 4	Antioxidant	Eastman
Tensami 306	Casein/xanthan gum	AlbanMuller
Tensine	Wheat protein	RITA
Texapon L20M		Henkel
Texapon SBN		Henkel
Texapon T42	TEA lauryl sulfate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Thioglycolate Trihydrate		Merck
Thioglycolic Acid		Witco
Timica Sparkle 110P	Cosmetic pearl powder	Rona
Timiron MP-24 Gold Karet Interference Pigment		Rona
Timiron MP1001/MP1500	Titanium dioxide/mica	Rona
Timiron S.I. Pigments	Titanium dioxide/mica	Rona
Timiron Silk Red/ Starlight Colors	Mica/titanium dioxide	Rona
Timiron Super Pigments	Pearlescent pigments	Rona
Tioveil FIN	Titanium dioxide/C12-15 Alkyl Benzoate	Tioxide
Titanium Dioxide 110	Titanium dioxide/bismuth oxy- chloride	Presperse
Titanium Dioxide #3328		
Tris Amino	Tris (hydroxymethyl) amino- methane	Angus
Trisept M	Methylparaben	Tri-K
Trisept P	Propyl paraben	Tri-K
Tristat IU	Imidazolidinyl urea	Tri-K
Tritisol	Soluble wheat protein	Croda
Triton X-100	Octoxynol-9	Rohm&Haas
Trivent OC-G	Tridecyl neopentanoate	Trivent
Tween 20	Polysorbate 20	ICI
Tween 40	Polysorbate 40	ICI
Tween 60	Polysorbate 60	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tween 80	Polysorbate 80	ICI
Tylose CB 200	Cellulose gum	Hoechst
Tylose H1000	Hydroxyethyl cellulose	Hoechst
Ucare Polymer JR-125	Polyquaternium-10	Union Carb
Ultraol 70 NF		
Ultrasure L	Petrolatum	Ultra
Ultrez 10		Goodrich
Unicide U-13	Imidazolidinyl urea	Lipo
Uninontan U-34	Water/propylene glycol/sodium citrate/lemon extract/cucumber extract	Lipo
Uniphen P-23	Phenoxyethanol/methylparaben/ethylparaben/propylparaben/butylparaben	Lipo
Unirep U-18		
Uvatone 2-6		
Uvinul M-40	Benzophenone-3	BASF
Uvinul MC80		BASF
UV-Titan M212	Titanium dioxide/alumina/glycerin/silica	Kemira
Van Gel B/C/ES/O	Magnesium aluminum silicate	Vanderbilt
Vanilla BB-36943		Ungerer
Vanseal CS	Cocoyl sarcosine surfactant	Vanderbilt
Vanseal NACS-30	Sodium lauroyl sarcosinate	Vanderbilt
Vanseal NALS-30	Sarcosinate surfactant	Vanderbilt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Varion CADG/CADG LS/	Surfactant	Sherex
Varisoft TA-100	Hair rinse concentrate	Sherex
Varonic LI-48/LI-67/ 63-E-20	Nonionic wetting agent	Sherex
Vaseline White	Petrolatum white	Witco
Veegum/ HV/ K/ Pro/ Regular/ T/ Ultra	Magnesium aluminum silicate	Vanderbilt
Velvetex BA-35	Cocamidopropyl betaine	Henkel
Velvetex BK-35		Henkel
Versatyl-42	Hair spray polymer	National
Versene Powder/100	Tetrasodium EDTA cheleting agent	Dow
Vibrant Splash 94F/2203	Fragrance	Fragrance
Vigilan AWS		Fanning
Vitamin-E-Acetate	Tocopheryl acetate	BASF
Vitamin F Forte CLR		Richter
Volpo CS20	Ethoxylated oleoyl ether	Croda
Volpo S-2	Steareth-2	Croda
Volpo S-10	Steareth-10	Croda
Volpo S-20	Steareth-20	Croda
Volpo 5	Oleth-5	Croda
Vybar-5013	Polymer	Petrolite

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Walnut Shells (AD-7B Type)		Agrashell
Waxenol 810		Wickhen
Wecobee S	Synthetic butter	Stepan
Wecobee SS	Synthetic cocoa butter	Stepan
Wheat Germ Oil		Rita
Wheat-Tein NL	Hydrolyzed wheat protein	Maybrook
White Fonoline	Petrolatum	Witco
White Protopet 1S	Petrolatum	Witco
Wickenol 152		CasChem
Wickenol 171		CasChem
Wickenol 550		CasChem
Witcamide 511	Alkanolamide surfactant	Witco
Witconate NIS	Sodium isethionate	Witco
Witconol APM	Nonionic surfactant	Witco
Xanthan Gum		Kelco
Yellow Protopet 2A	Petrolatum	Witco
Zetesol NL	Sodium lauryl ether sulfate	Zschimmer
Zetesol 856T	Fatty alcohol ether sulfate	Zschimmer
Zinc Omadine	Zinc pyrithione, 48%	Olin
Zinc Oxide Neutral		Haarman
Zinc Stearate #695		
Zusolat 1004	Alkyl polyethylene glycol ether	Zschimmer
Zusolat 1005/85	Alkyl polyethylene glycol ether	Zschimmer

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
18-B	Glycyrrhetic Acid Phytosome	
33-5198	Black Iron Oxide	Rona
43W1810	Ultramarine Blue	Rona
80/20	Bradpride Soap Base	Bradford
7054	Red Iron Oxide	Rona
7055	Yellow Iron Oxide	Rona
7133	Black Iron Oxide	Rona
43001	Manganese Violet	Rona

Section XIV

Suppliers' Addresses

Agrashell Inc.
5934 Keystone Dr.
Bath, PA 18014
(215)-837-6705

Ajinomoto USA, Inc.
Glenpoint Ctr. W.
500 Frank W. Burr Blvd.
Teaneck, NJ 07645
(201)-907-3244

Akzo Chemicals, Inc.
300 South Riverside Plaza
Chicago, IL 60606
(312)-906-7500

Albright & Wilson Americas
P.O. Box 26229
Richmond, VA 23260
(804)-550-4300/(800)-446-3700

Allied Signal, Inc.
P.O. Box 2332R
Morristown, NJ 07962
(201)-455-2000

Amerchol Corp.
P.O. Box 4051
136 Talmadge Rd.
Edison, NJ 08818
(908)-248-6000

American Colloid Co.
Hwy 212W
Belle Fourche, SD 57717
(605)-892-2591

Amoco Chemical Co.
200 E. Randolph Dr.
Chicago, IL 60601
(312)-856-3200/(800)-621-4567

Angus Chemical Co.
1500 E. Lake Cook Rd.
Buffalo Grove, IL 60089
(708)-215-8600/(800)-323-6209

Aqualon
1313 N. Market St.
Wilmington, DE 19899
(302)-594-5000/(800)-345-8104

Atochem North America
900 Milk St.
Cartaret, NJ 07008
(908)-541-4414

BASF Corp.
100 Cherry Hil Rd.
Parsippany, NJ 07054
(201)-316-3000/(800)-526-1072

Bell Flavors & Fragrances, Inc.
500 Academy Dr.
Northbrook, IL 60062
(312)-291-8300/(800)-323-4387

Bernel Chemical Co., Inc.
174 Grand Ave.
Englewood, NJ 07631
(201)-569-8934

BK-Ladenburg Corp.
50 Spring St.
Cresskill, NJ 07626
(201)-567-9100/(800)-526-2688

Brooks Industries, Inc.
70 Tyler Place
South Plainfield, NJ 07080
(908)-561-5200

Calgon Corp.
P.O. Box 1346
Pittsburgh, PA 15230
(412)-777-8000

Capital City Products Co.
525 W. First Ave.
Columbus, OH 43216
(614)-299-3131/(800)-848-1340

CasChem, Inc.
40 Avenue A
Bayonne, NJ 07002
(201)-858-7900/(800)-CAS-CHEM

Centerchem, Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

Ciba-Geigy Corp.
410 Swing Rd.
Greensboro, NC 27419
(919)-632-7327/(800)-221-0453

Colorcon, Inc.
Moyer Blvd.
West Point, PA 19486
(215)-699-7733

A & E Connock, Ltd.
Fordingsbridge,
Hunts, UK

Croda, Inc.
7 Century Dr.
Parsippany, NJ 07054
(201)-644-4900

Dow Chemical USA
2020 Dow Center
Midland, MI 48674
(800)-258-CHEM

Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-4000

Dragoco, Inc.
10 Gordon Drive
Totowa, NJ 07512
(201)-256-3850

DuPont Co.
1007 Market St.
Wilmington, DE 19898
(800)-441-7515

Eastman Chemical Co.
P.O. Box 431
Kingsport, TN 37662
(615)-229-4006/(800)-EASTMAN

ECC America
5775 Peachtree-Dunwoody Rd.
Atlanta, GA 30342
(800)-843-3222

E. Merck
Darmstadt, Germany

Fanning Corp.
2450 W. Hubbard St.
Chicago, IL 60612
(312)-563-1234

Finetex, Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407
(201)-797-4686

Florida Food Products, Inc.
2231 W. Hwy 44
Eustis, FL 32726
(904)-357-4141

H.B. Fuller Co.
3530 N. Lexington Ave.
St. Paul, MN 55126
(612)-481-1588/(800)-468-6358

GE Silicones
260 Hudson River Rd.
Waterford, NY 12188
(518)-237-3330/(800)-255-8886

Givaudan-Roure Corp.
100 Delawanna Ave.
Clifton, NJ 07015
(201)-365-8000

Goldschmidt Chemical Corp.
914 E. Randolph Rd.
Hopewell, VA 23860
(804)-541-8658/(800)-445-1809

B.F. Goodrich Co.
9911 Brecksville Rd.
Cleveland, OH 44141
(216)-447-5000/(800)-331-1144

Haarman & Reimer Corp.
60 Diamond Rd.
Springfield, NJ 07091
(201)-912-5707/(800)-432-1559

Hampshire Chemical Co.
55 Hayden Ave.
Lexington, MA 02173
(617)-861-6600

Henkel Corp.
11501 Northlake Dr.
Cincinnati, OH 45299
(513)-530-7300/(800)-543-7370

Hercules, Inc.
Hercules Plaza
Wilmington, DE 19894
(800)-247-4372

Hoechst Celanese Corp.
3340 W. Norfolk Rd.
Portsmouth, VA 23703
(800)-483-7530/(800)-526-4960

Hoffman-LaRoche, Inc.
340 Kingsland St.
Nutley, NJ 07110
(201)-235-8080/(800)-526-0189

Hormel
P.O. Box 800
Austin, MN 55912
(507)-437-5676

J.M. Huber Corp.
Thornall St.
Edison, NJ 08837
(201)-549-8600

Huls America, Inc.
80 Centennial Dr.
Piscataway, NJ 08854
(908)-980-6946/(800)-526-0339

Hydrolabs, Inc.
27 E. 33 St.
Paterson, NJ 07514
(201)-345-5100

ICI Americas Inc.
Concord Pike & New Murphy Rd.
Wilmington, DE 19897
(302)-575-3034/(800)-822-8215

Inolex Chemical Co.
Jackson & Swanson Sts.
Philadelphia, PA 19148
(215)-271-0800/(800)-521-9891

ISP: International Specialty Prod
1361 Alps Rd.
Wayne, NJ 07470
(201)-628-3000/(800)-848-7659

Kelco Div.
Merck & Co., Inc.
8355 Aero Drive
San Diego, CA 92123
(619)-292-4900/(800)-535-2656

Kemira, Inc.
1170 Rte 22E
P.O. Box 6784
Bridgewater, NJ 08807
(201)-526-4644/(800)-4-KEMIRA

Koster-Keunen, Inc.
P.O. Box 447
90 Bourne Blvd.
Sayville, NY 11782
(516)-589-0456

Lanaetex Products, Inc.
151 3 Ave.
Elizabeth, NJ 07206
(908)-351-9700

Lipo Chemicals, Inc.
207 19th Ave.
Paterson, NJ 07504
(201)-345-8600

Lonza, Inc.
17-17 Rte. 208
Fair Lawn, NJ 07410
(201)-794-2400/(800)-777-1875

Mearl Corp.
41 E. 42 St.
New York, NY 10017
(212)-573-8500

Mona Industries Inc.
76 E. 24 St.
P.O. Box 425
Paterson, NJ 07544
(201)-345-8220

Morfex, Inc.
2110 High Point Rd.
Greensboro, NC 27403
(919)-292-1781

National Starch & Chemical Co.
10 FINDERNE AVE.
BRIDGEWATER, NJ 08807
(908)-685-5000/(800)-532-1115

Nipa Laboratories Inc.
104 Hagley Bldg.
Concord Plaza
3411 Silverside Rd.
Wilmington, DE 19810
(302)-478-1522

Oils of Aloha
P.O. Box 685
66-935 Kaukonahua Rd.
Waialua, Hawaii 96791
(800)-367-6010

Olin Corp.
120 Long Ridge Rd.
P.O. Box 1355
Stamford, CT 06904
(203)-356-2000/(800)-243-9171

Original Bradford Soap Works
200 Providence St.
West Warwick, RI 02893
(401)-821-2141

Pentapharm Ltd.
Engelgasse 109, P.O.Box
Basel, Switzerland

Penreco
138 Petrolia St.
Karns City, PA 16041
(412)-283-5600/(800)-245-3952

Petrolite Corp.
6910 E 14 St.
Tulsa, OK 74112
(918)-836-1601

Phoenix Chemical Co., Inc.
322 Courtyard Drive
Somerville, NJ 08876
(908)-707-0232

Phillips 66 Co.
376 Phillips Bldg. Annex
Bartlesville, OK 74004
(806)-274-5236/(800)-858-4327

Pilot Chemical Co.
11756 Burke St.
Santa Fe Springs, CA 90670
(213)-723-0036

Polyester Corp.
61 Hill St.
P.O. Drawer 5076
Southampton, NY 11969
(516)-283-4400

PPG Industries
3938 Porett Drive
Gurnee, IL 60031
(708)-244-3410/(800)-CHEM-PPG

Proctor & Gamble Chemicals Div.
P.O. Box 599
Cincinnati, OH 45201
(513)-983-5607/(800)-543-1580

Quest International Fragrances
400 International Dr.
Mount Olive, NJ 07828
(201)-691-7100

Rheox Inc.
Wyckoff Mills Rd.
Hightstown, NJ 08520
(609)-443-2320

Rhone-Poulenc Inc.
Prospect Plains Rd.
Cranbury, NJ 08512
(609)-860-4000

Dr. K. Richter GmbH
Chemisches Laboratorium
Bennigonstrabe 25,
D-1000 Berlin

R.I.T.A. Corp.
1725 Kilkenny
Woodstock, IL 60098
(815)-337-2500/(800)-426-7759

Roche Chemical Division
Hoffman-LaRoche, Inc.
Nutley, NJ 07110
(201)-235-8077/(800)-526-0189

Rohm & Haas Co.
Independence Mall West
Philadelphia, PA 19105
(215)-592-3000

Rona/EM Industries
5 Skyline Drive
Hawthorne, NY 10532
(914)-592-4660

Frank B. Ross Co., Inc.
P.O. Box 4085
Jersey City, NJ 07304
(201)-433-4512

Scher Chemicals Inc.
Industrial W cor Styertowne Rd.
Clifton, NJ 07012
(201)-471-1300

Shell Chemical Co.
P.O. Box 2463
Houston, TX 77002
(713)-241-6161

Stepan Co.
22 W. Frontage Rd.
Northfield, IL 60093
(708)-446-7500

Sun Chemical Corp.
411 Summit Ave.
Cincinnati, OH 45232
(513)-681-5950/(800)-343-2583

Sutton Laboratories, Inc.
116 Summit Ave.
Cincinnati, OH 45232
(513)-681-5950/(800)-343-2583

Terry Laboratories, Inc.
390 N. Wickham Rd.
P.O. Box 566
Melbourne, FL 32935
(407)-259-1630/(800)-367-2563

Tioxide Speciaties Ltd.
Billingham, Cleveland TS23 1PS
United Kingdom
0642-370300

Tri-K Industries, Inc.
P.O. Box 312
27 Bland St.
Emerson, NJ 07630
(201)-261-2800/(800)-526-0372

Trivent Chemical Co.
45 Ridge Rd.
P.O. Box 597
South River, NJ 08882
(908)-251-1116

Unichema North America
4650 S. Racine Ave.
Chicago, IL 60609
(312)-376-9000/(800)-833-2864

Union Carbide Chemicals and
Plastics
39 Old Ridgebury Rd.
Danbury, CT 06817
(203)-794-5300

R.T. Vanderbilt Co., Inc.
30 Winfield St.
P.O. Box 5150
Norwalk, CT 06856
(203)-853-1400

Van Dyk
Main & William Sts.
Belleville, NJ 07109
(201)-450-3264

Wacker Silicones Corp.
3301 Sutton Rd.
Adrian, MI 49221
(517)-264-8500/(800)-248-0063

Whittaker, Clark & Daniels
1000 Coolidge St.
South Plainfield, NJ 07080
(908)-561-6100

Witco Corp. (All Groups)
1)Oleo surfactants Group
2)Petroleum Specialties Group
3)Polymer Additives Group
520 Madison Ave.
New York, NY 10022
(212)-605-3600

Witco Corp.
5777 Frantz Rd.
P.O. Box 646
Dublin, OH 43017
(614)-765-6500/(800)-366-6500

Zschimmer & Schwarz
P.O. Box 2179
D-5420 Lahnstein,
West Germany

3V Inc.
1500 Harbor Blvd.
Weehawken, NJ 07087
(201)-865-3600